

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

RUBIK’S BRAND LIMITED,

Plaintiff,

-against-

FLAMBEAU, INC.,

Defendant.

Civil Action No. 1:17-cv-6559 (PGG)

CONFIDENTIAL VERSION

**DEFENDANT FLAMBEAU, INC.’S RULE 56.1 STATEMENT OF MATERIAL FACTS
IN SUPPORT OF ITS MOTION FOR SUMMARY JUDGMENT**

Defendant Flambeau, Inc. (“Flambeau”) hereby submits the following Statement of Facts pursuant to Fed. R. Civ. P. 56 and Local Rule 56.1:¹

The Parties

1. Rubik’s Brand Limited (“RBL”) is a limited liability company organized under the laws of the United Kingdom, with its principal place of business in London, England. (Dkt. 1, Complaint, ¶ 5; Dkt. 28, Answer to Counterclaims, ¶ 6).
2. Flambeau is a corporation organized under the laws of the State of Wisconsin, with its principal place of business in Baraboo, Wisconsin. (Dkt. 24, Answer, ¶ 6; *id.*, Counterclaims, ¶ 5).
3. RBL asserts rights over a design mark consisting of a black puzzle cube having nine square-shaped color patches on each of its six faces, with the color patches on each face being the same when the puzzle is in the start or solved position, and consisting of the colors red, white, blue, green, yellow, and orange (hereinafter “3x3 Cube Design”). (Dkt.

¹ “Ex.” refers to the exhibits contained in Flambeau’s Appendix, filed concurrently herewith.

- 1, Complaint, ¶¶ 10, 15; Ex. 67, RBL Interrog. Resp., No. 4; Ex. 37, '094 Registration; Ex. 61, Kremer Dep. Tr., at 12:9-20, 111:8-112:3, 112:10-11, 160:12-15, 160:18-21).
4. RBL does not manufacture puzzle cubes. (Ex. 60, Riehl Dep. Tr., at 10:17-20, 49:10-18).
5. RBL does not directly sell puzzle cubes. (Ex. 60, Riehl Dep. Tr., at 10:17-20, 33:23-34:16, 50:12-51:12, 152:19-153:2).
6. RBL licenses intellectual property, including the 3x3 Cube Design, to manufacturers of puzzle cubes for a royalty. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 15:9-13, 163:7-12, 166:25-167:13, 170:12-24, 171:4, 171:10-14, 171:20-25, 172:6-10; Ex. 60, Riehl Dep. Tr., at 10:17-20, 49:10-18; Ex. 64, Vollmar Dep. Tr., at 27:17-19, 28:2-8).
7. Flambeau is a manufacturer and seller of plastic goods. (Ex. 1, Burke Decl., ¶ 5).
8. Duncan Toys Company ("Duncan") is a division of Flambeau. (Ex. 1, Burke Decl., ¶ 5).
9. Flambeau, through Duncan, sells a puzzle cube called the "Duncan Quick Cube" or the "Quick Cube." (Ex. 1, Burke Decl., ¶¶ 10-13).
10. In August 2017, RBL sued Flambeau, claiming Flambeau's sales of the Duncan Quick Cube infringe RBL's alleged rights in the 3x3 Cube Design. (Dkt. 1, Complaint, ¶¶ 15, 28-60; *see also* Ex. 61, Kremer Dep. Tr., at 12:9-20, 117:21-118:6).

Puzzle Cubes

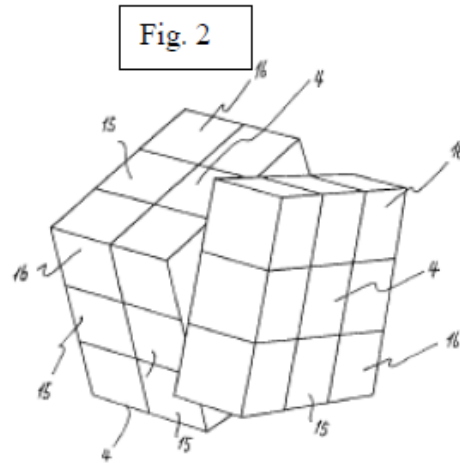
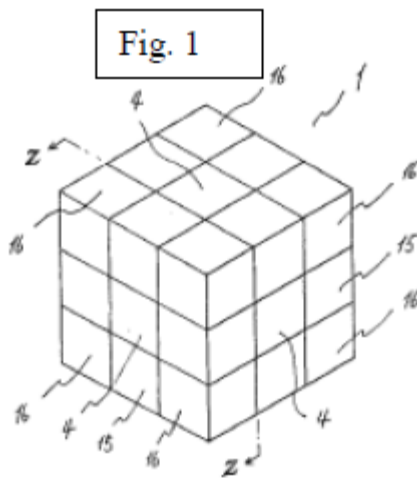
11. Three-dimensional puzzles are three-dimensional objects that are composed of smaller segments that can be twisted and turned to scramble and solve the faces of the object by its external indicia. (Ex. 16, Loetz Rep., ¶¶ 17-19).
12. Puzzle cubes are a type of three-dimensional puzzle that have six equal, square faces. (Ex. 16, Loetz Rep., ¶ 17-18; Ex. 60, Riehl Dep. Tr., at 10:17-20, 53:16-19, 54:7-12, 54:17-23).

13. The smaller segments of puzzle cubes are typically smaller cubes. (Ex. 16, Loetz Rep., ¶ 18).
14. The external indicia of puzzle cubes are typically colors. (Ex. 16, Loetz Rep., ¶ 18).
15. Puzzle cubes are in their “solved state” when each face of the cube shows the desired external indicia. (Ex. 16, Loetz Rep., ¶ 20; Ex. 60, Riehl Dep. Tr., at 10:17-20, 73:14-19, 73:24-74:9).
16. A typical “solved state” for a puzzle cube is when each face of the cube shows a single, distinct color. (Ex. 16, Loetz Rep., ¶ 20).
17. Puzzle cubes are classified by the number of smaller segments that compose each face of the cube. (Ex. 16, Loetz Rep., ¶ 21).
18. A 3x3 puzzle cube is a puzzle cube where each face is divided into nine equal segments organized into three rows of three. (Ex. 16, Loetz Rep., ¶ 21).
19. 3x3 puzzle cubes are a common type of puzzle cube. (Ex. 16, Loetz Rep., ¶ 21).

Early Puzzle Cube Patents

20. Three-dimensional puzzles and puzzle cubes have been known and used for decades. (Ex. 16, Loetz Rep., ¶ 22.a-g; Exs. 18-30 (collecting patents on puzzle cubes)).
21. U.S. Patent No. 3,081,089 for a “Manipulable Toy” was applied for February 2, 1960 and issued in the name of William O. Gustafson on March 12, 1963 (“Gustafson Patent”). (Ex. 29, Gustafson Patent, p. 1, 3).
22. The Gustafson Patent discloses “a mechanical puzzle having a plurality of vari-colored parts which are movable relative to each other to form various patterns.” (Ex. 29, Gustafson Patent, at FLAMBEAU001063).
23. The Gustafson Patent expired by the early 1980s. (Ex. 29, Gustafson Patent, at FLAMBEAU001063; Ex. 16, Loetz Rep., ¶ 23 & n. 26).

24. U.S. Patent No. 3,655,201 for a “Pattern Forming Puzzle and Method with Pieces Rotatable in Groups” was applied for March 4, 1970 and issued in the name of Larry D. Nichols on April 11, 1972 (“Nichols Patent”). (Ex. 18, Nichols Patent, at FLAMBEAU001072).
25. The Nichols Patent discloses “a cube-type assembly” wherein “[e]ach cube has colored surfaces and when properly arranged one distinct color on each of the six faces is presented.” (Ex. 18, Nichols Patent, at FLAMBEAU001072 (Abstract); *see also* Ex. 63, Simms Dep. Tr., at 15:17-20, 111:16-112:3, 112:18-113:9, 113:12-25).
26. The Nicholas Patent discloses a subdivided cube wherein “the exposed surfaces are colored so as to allow the complete cube if its component parts are properly arranged to present one distinct coloration on each of its six faces.” (Ex. 18, Nichols Patent, at FLAMBEAU001074, Col. 1:63-65; *see also* Ex. 63, Simms Dep. Tr., at 15:17-20, 111:16-112:3, 112:18-113:9, 113:12-25).
27. The Nichols Patent expired by the early 1990s. (Ex. 18, Nichols Patent, at FLAMBEAU001072; Ex. 16, Loetz Rep., ¶ 23 & n. 26).
28. Japanese Patent No. S53-120946 for a “Rotation type stereoscopic combination toy” was applied for March 29, 1977 and was published in the name of Terutoshi Ishige on October 21, 1978 (“Ishige Patent”). (Ex. 19, Ishige Patent, at FLAMBEAU001583 (English translation)).
29. The Ishige Patent discloses “stereoscopic puzzles that combine pictures, letters, patterns, etc. of each surface in which each surface of cubes is equally divided into 3 horizontally and vertically.” (Ex. 19, Ishige Patent, at FLAMBEAU001583, ¶ 3; *see also* Ex. 63, Simms Dep. Tr., at 15:17-20, 125:21-25, 126:9-21).
30. The Ishige Patent discloses the following figures of a 3x3 puzzle cube:



(Ex. 19, Ishige Patent, at FLAMBEAU001586 (English translation)).

31. RBL agrees that Ishige is recognized as an independent inventor of the 3x3 puzzle cube that RBL calls the Rubik's Cube. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 109:6-14).

The Rubik Patents

32. RBL credits Ernő Rubik, a Hungarian professor, with inventing the 3x3 puzzle cube at issue in this case. (Dkt. 1, Complaint, ¶ 9).

33. Mr. Rubik was issued at least five patents covering puzzle cubes in the 1970s and early 1980s. (Exs. 20-24 (collecting Rubik patents)).

34. Hungarian Patent No. 170062 for a "Spatial Logic Toy" was applied for January 30, 1975 and issued in the name of Mr. Rubik on December 31, 1977 ("the '062 Rubik Patent").

(Ex. 20, '062 Rubik Patent, at FLAMBEAU000640 (English translation); *see also* Ex. 61, Kremer Dep. Tr., at 12:9-20, 187:23-188:4).

35. The '062 Rubik Patent discloses a 3x3 puzzle cube. (Ex. 20, '062 Rubik Patent, FLAMBEAU000640-641, FLAMBEAU000645 at Figs. 1-4 (English translation); *see also* Ex. 63, Simms Dep. Tr., at 15:17-20, 114:1-9, 114:16-22, 116:13-15, 116:21-117:1; Ex. 69, RBL Req. Ad. Resp., Nos. 18-19).

36. The '062 Rubik Patent discloses a “spatial logical toy, which may be assembled from twenty-seven solid pieces, into with respect to its external shape, a closed cube.” (Ex. 20, '062 Rubik Patent, at FLAMBEAU000640 (English translation); *see also* Ex. 63, Simms Dep. Tr., at 15:17-20, 114:1-9, 114:16-22, 116:13-15, 116:21-117:1).
37. The '062 Patent discloses “[o]f the twenty-seven elements forming the large cube the nine solid pieces forming any face surface of the cube are arranged so that they may rotate together and at the same time.” (Ex. 20, '062 Rubik Patent, at FLAMBEAU000640 (English translation); *see also* Ex. 63, Simms Dep. Tr., at 15:17-20, 114:1-9, 114:16-22, 116:13-15, 116:21-117:1).
38. The '062 Patent discloses “[t]he surfaces of the cubes are supplied with predetermined planar figures, or three-dimensional shapes, or numbers (coded), with which they may be differentiated from each other and matched with each other, which as a result of rotation around the spatial axes according to the very different variation or combinations appear as further, specific legible figures, number or symbol combinations on the given face of the cube.” (Ex. 20, '062 Rubik Patent, at FLAMBEAU000640 (English translation); *see also* Ex. 63, Simms Dep. Tr., at 15:17-20, 114:1-9, 114:16-22, 116:13-15, 116:21-117:1).
39. The '062 Rubik Patent discloses the following figures of a 3x3 puzzle cube:

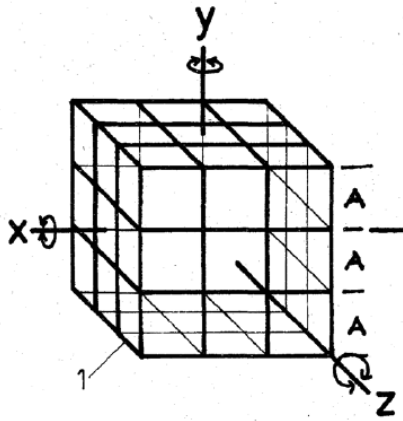


Figure 1

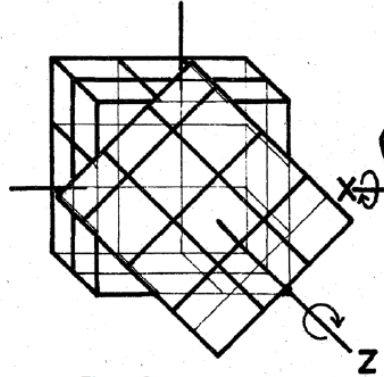


Figure 3

(Ex. 20, '062 Rubik Patent, at FLAMBEAU000641, FLAMBEAU000645 (English translation)).

40. Belgian Patent No. 887875 for a “Spatial logical toy” was published in the name of Mr. Rubik on July 1, 1981 (“the ‘875 Rubik Patent”). (Ex. 21, ‘875 Rubik Patent, at FLAMBEAU000619-620 (English translation); *see also* Ex. 63, Simms Dep. Tr., at 15:17-20, 117:1-5)).

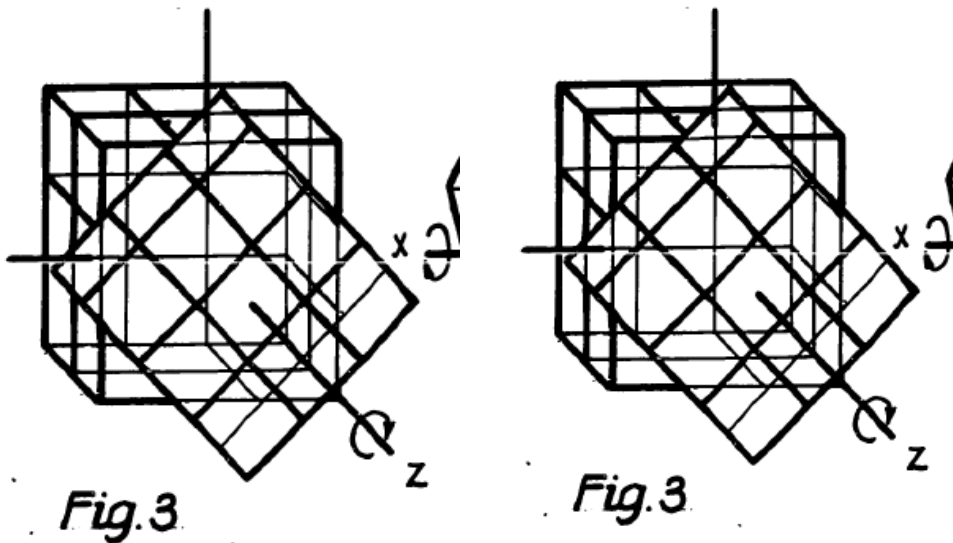
41. The ‘875 Rubik Patent discloses a 3x3 puzzle cube. (Ex. 21, ‘875 Rubik Patent, FLAMBEAU000621-624 (English translation); Ex. 69, RBL Req. Ad. Resp., Nos. 20-21).

42. The ‘875 Rubik Patent discloses “a spatial logical toy that, as regards to its external appearance, consists of twenty-seven solids forming a closed cube....” (Ex. 21, ‘875 Rubik Patent, FLAMBEAU000621).

43. The ‘875 Rubik Patent discloses “Among the twenty-seven components that comprise the main cube, nine components that form any one of the sides of the cube are mounted such that they rotate together and at the same time....” (Ex. 21, ‘875 Rubik Patent, FLAMBEAU000621).

44. The '875 Rubik Patent discloses "The surfaces of the cubes are supplied (encoded) with predetermined flat illustrations or plastic shapes or numeric figures, by which they may be made to be distinct and identifiable from each other...." (Ex. 21, '875 Rubik Patent, FLAMBEAU000621).

45. The '875 Rubik Patent discloses the following figures of a 3x3 puzzle cube:



(Ex. 21, '875 Rubik Patent, at FLAMBEAU000614).

46. Hungarian Patent No. 180387 for a "Spatial Logic Toy" was applied for October 28, 1980 and issued in the name of Mr. Rubik on October 30, 1986 ("the '387 Rubik Patent"). (Ex. 22, '387 Rubik Patent, at FLAMBEAU000659 (English translation); *see also* Ex. 63, Simms Dep. Tr., at 15:17-20, 118:22-119:7).

47. The '387 Patent states "[s]patial logic toys are well known." (Ex. 22, '387 Rubik Patent, at FLAMBEAU000659, ¶ 2).

48. The '387 Patent references the Ishige Patent as disclosing a 3x3 puzzle cube "of which the 9 small cube faces located on each of the faces of the large cube can be arranged by

rotation so that each large cube face contains the same color of small cube faces.” (Ex. 22, ‘387 Rubik Patent, at FLAMBEAU000659, ¶ 3).

49. The ‘387 Patent discloses “a spatial logic toy, which has a given number of toy elements arrange so as to be rotatable around the spatial axes projected from the geometrical center of the logic toy.” (Ex. 22, ‘387 Rubik Patent, at FLAMBEAU000659, ¶ 1).
50. The ‘387 Patent claims an “[embodiment of [a] spatial logic toy ... characterized by ... colors ... on the external surfaces of the toy elements” (Ex. 22, ‘387 Rubik Patent, at FLAMBEAU000664-665, Cl. 8; *see also* Ex. 63, Simms Dep. Tr., at 15:17-20, 118:22-119:7, 119:12-120:17, 121:13-15).
51. U.S. Patent No. 4,378,116 for a “Spatial Logical Toy” was applied for August 3, 1981 and issued in the name of Mr. Rubik on March 29, 1983 (“the ‘116 Rubik Patent”). (Ex. 23, ‘116 Rubik Patent, at FLAMBEAU000667; Ex. 61, Kremer Dep. Tr., at 12:9-20, 206:22-207:15).
52. The ‘116 Rubik Patent states “[s]patial logic toys are well known.” (Ex. 23, ‘116 Rubik Patent, at FLAMBEAU000669, Col. 1:9).
53. The ‘116 Rubik Patent references the ‘062 Rubik Patent as disclosing a 3x3 puzzle cube. (Ex. 23, ‘116 Rubik Patent, at FLAMBEAU000667-668).
54. The ‘116 Rubik Patent references the ‘062 Rubik Patent as disclosing a puzzle cube wherein “[t]he surfaces of the small cubes forming each surface of the large cube are colored ... [and] can be assembled into the predetermined logical order of sequence by simultaneously rotating the nine toy elements forming the surfaces of the ‘large cube.” (Ex. 23, ‘116 Rubik Patent, at FLAMBEAU000669, Col. 1:17-22; Ex. 61, Kremer Dep. Tr., at 12:9-20, 207:21-208:17; *see also* Ex. 63, Simms Dep. Tr., at 15:17-20, 121:20-22, 122:20-123:4, 123:18-24).

55. The ‘116 Rubik Patent expired by the early 2000s. (Ex. 23, ‘116 Rubik Patent, at FLAMBEAU000667; Ex. 16, Loetz Rep., ¶ 23 & n. 26).
56. U.S. Patent No. 4,378,117 for a “Spatial Logical Toy” was applied for August 3, 1981 and issued in the name of Mr. Rubik on March 29, 1983 (“the ‘117 Rubik Patent”). (Ex. 24, ‘117 Rubik Patent, at FLAMBEAU001361; Ex. 61, Kremer Dep. Tr., at 12:9-20, 211:15-212:3).
57. The ‘117 Rubik Patent discloses a “preferred embodiment” of a spatial logical toy wherein “the solid forming the toy is a regular geometrical solid confined by planes, preferably a cube....” (Ex. 24, ‘117 Rubik Patent, at FLAMBEAU001363, Col. 1:10-12; *see also* Ex. 63, Simms Dep. Tr., at 15:17-20, 124:4-22, 125:2-20).
58. The ‘117 Rubik Patent discloses a “preferred embodiment” of a spatial logical toy wherein “[t]he small cubic elements forming the plane surfaces of the large cube are either colored or indicated with numbers, figures or any other symbols....” (Ex. 24, ‘117 Rubik Patent, at FLAMBEAU001363, Col. 1:16-18).
59. The ‘117 Rubik Patent discloses a “preferred embodiment” of a spatial logical toy wherein “by rotating the cubes, several combinations become possible in compliance with the contents yielded by the indicia.” (Ex. 24, ‘117 Rubik Patent, at FLAMBEAU001363, Col. 1:19-21).
60. The ‘117 Rubik Patent expired by the early 2000s. (Ex. 24, ‘117 Rubik Patent, at FLAMBEAU001361; Ex. 16, Loetz Rep., ¶ 23 & n. 26).

Other Puzzle Cube Patents

61. U.S. Patent No. 4,409,750 for a “Calender Formed from a Cube Puzzle” was applied for August 18, 1981 and issued in the name of Marvin A. Silbermintz on October 18, 1983 (“the Silbermintz Patent”). (Ex. 25, Silbermintz Patent, at FLAMBEAU001365).

62. When the Silbermintz Patent issued, it was assigned to the Ideal Toy Corporation. (Ex. 25, Silbermintz Patent, at FLAMBEAU001365).
63. The Silbermintz Patent lists the '062 Rubik Patent in "References Cited." (Ex. 25, Silbermintz Patent, at FLAMBEAU001365).
64. The Silbermintz Patent discloses that in the "Ideal 'Rubik's Cube' version of the cube puzzle, each face is colored uniformly with a distinct color, but repeated rotation of the various faces scrambles the individual cubie faces. The object of the game then is to continue to rotate the cube faces in order to return the cubies to their original position so that all sides of the cube have a solid color." (Ex. 25, Silbermintz Patent, at FLAMBEAU001375, Col. 1:26-32).
65. U.S. Patent No. 4,421,311 for a "Puzzle-Cube" was applied for January 29, 1982 and issued in the name of Peter Sebesteny on December 20, 1983 ("the Sebesteny Patent"). (Ex. 28, Sebesteny Patent, at FLAMBEAU001383).
66. When the Sebesteny Patent issued, it was assigned to the Ideal Toy Corporation (Ex. 28, Sebesteny Patent, at FLAMBEAU001383).
67. The Sebesteny Patent lists the Gustafson Patent, the Nichols Patent, the '062 Rubik Patent, and the Ishige Patent in "References Cited." (Ex. 28, Sebesteny Patent, at FLAMBEAU001383).

68. The Sebesteny Patent discloses:

A puzzle cube in a $3 \times 3 \times 3$ version has been discussed and previously known (The Mathematical Intelligencer, September 1979, pages 29 and 30, Springer-Verlag). In such a puzzle cube, nine outer surfaces of the cube elements are respectively provided with one and the same color, so that in the starting position each side of the cube body is one color. Thus, the cube body has six different colored surfaces which are to be re-adjusted again after a random disarrangement of the individual cube elements. Each cube element may be rotated about three axes standing perpendicularly one upon another and extending through the cube center. In this rotary movement, it takes along with it all the cube elements that are disposed in the same plane with respect to the direction of rotation. Thus, each cube element forms part of three sections respectively arranged normal to each other and adapted to be rotated about a center axis of the cube. Therefore, each cube element can be rotated only together with the respectively associated section, while by itself it has to be considered as being stationary with respect to the cube body. Precluded is furthermore a diagonal rotation of the cube elements.

(Ex. 28, Sebesteny Patent, at FLAMBEAU001391).

69. U.S. Patent No. 6,626,431 for a “Rotational Cubic Puzzle” was applied for May 29, 2001 and issued in the name of William Possidento on September 30, 2003 (“the Possidento Patent”). (Ex. 26, Possidento Patent, at FLAMBEAU001678).

70. The Possidento Patent discloses an invention that in its “simplest form” includes “a cubic rotatable block type of puzzle” in “a 3×3 array on each of the six faces.” (Ex. 26, Possidento Patent, at FLAMBEAU001682, Col. 1:10-17).

71. The Possidento Patent discloses that “Each face of the puzzle is divided into 9 sections; in the case of Rubik’s Cube, the 9 sections are supposed to all be of the same color when the puzzle is solved correctly.” (Ex. 26, Possidento Patent, at FLAMBEAU001682, Col. 1:31-33).

72. U.S. Patent No. 7,644,924 for a “Three Dimensional Sudoku Cube Puzzle and Method” was applied for May 8, 2007 and issued in the name of Jay Horowitz on January 12, 2010 (“the Horowitz Patent”). (Ex. 27, Horowitz Patent, at FLAMBEAU001685).
73. The Horowitz Patent discloses “a three dimensional puzzle bearing the shape of a cube.” (Ex. 27, Horowitz Patent, at FLAMBEAU001692).
74. The Horowitz Patent discloses an embodiment of a three dimensional puzzle bearing the shape of a cube wherein “each face bears one of six distinct colored indicia.” (Ex. 27, Horowitz Patent, at FLAMBEAU001692, Col. 2:9-10).
75. UK Patent Application for a “Spatial logic puzzle” was filed June 12, 2012 and published in the name of Steven Perrin on October 3, 2012 (“the Perrin Patent”). (Ex. 30, Perrin Patent Application, at RBL_009260).
76. The Perrin Patent Application was filed by Seven Towns Ltd. (Ex. 30, Perrin Patent Application, at FLAMBEAU009260).
77. Seven Towns Ltd. is RBL’s predecessor-in-interest to intellectual property rights related to the Rubik’s Cube. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 15:23-16:4, 16:12-25, 17:9-24, 21:8-22:15; Ex. 60, Riehl Dep. Tr., at 10:17-20, 23:20-24, 25:5-9, 33:18-22, 41:3-20, 34:4-9, 196:21-197:13).
78. The Perrin Patent Application discloses the “general arrangement of a 3 x 3 x 3 Rubik’s cube puzzle.” (Ex. 30, Perrin Patent Application, at RBL_009274, ¶ 3).
79. The Perrin Patent Application discloses using “snap-in coloured inserts for the various face edge and corner cubes instead of more usual adhesive coloured identifiers.” (Ex. 30, Perrin Patent Application, at RBL_009287, ¶ 1).

Ideal, CBS & the Nichols Patent Litigation

80. Ideal Toy Company (“Ideal”) learned of Mr. Rubik’s puzzle cubes in late 1979. (Ex. 39, 6/19/1985 Brief for Appellant, CBS, Inc., filed in *CBS, Inc. v. Molculon Research Corp.*, No. 85-2096 (Fed. Cir.) (“CBS Brief”), at FLAMBEAU002015 (1985 WL 671390, *16)).
81. In September 1979, Ideal entered into an agreement granting Ideal exclusive rights to sell Mr. Rubik’s puzzle cubes in the U.S. (Ex. 39, CBS Brief, at FLAMBEAU002015 (1985 WL 671390, *16); Ex. 38, 10/2/1984 Opinion & Order, issued in *Molculon Research Corporation v. CBS, Inc.*, No. 82-289 (D. Del.) (“1984 D. Del. Op.”), at FLAMBEAU002072 (594 F. Supp. 1420, 1424); Ex. 63, Simms Dep. Tr., at 15:17-20, 69:6-16; *see also* Ex. 61, Kremer Dep. Tr., at 12:9-20, 29:24-30:8, 30:12-25, 32:3-10, 32:20-24).
82. In September 1979, Ideal entered into an agreement granting Ideal rights and to use the name “Rubik’s” for puzzle cubes in the U.S. (Ex. 39, CBS Brief, at FLAMBEAU002015 (1985 WL 671390, *16)).
83. Ideal debuted its 3x3 puzzle cube, called the “Rubik’s Cube,” at the New York City Toy Fair in February 1980. (Ex. 39, CBS Brief, at FLAMBEAU002015 (1985 WL 671390, *17); Ex. 61, Kremer Dep. Tr., at 12:9-20, 98:6-17).
84. In early 1981, a representative of Molculon Research Corporation (“Molculon”), wrote to the president of Ideal about the Nichols Patent. (Ex. 38, 1984 D. Del. Op., at FLAMBEAU002072 (594 F. Supp. 1420, 1424)).
85. Ideal responded to Molculon that it had studied the prior art and believed its Rubik’s Cube did not infringe any valid patent claims. (Ex. 38, 1984 D. Del. Op., at FLAMBEAU002072 (594 F. Supp. 1420, 1424)).

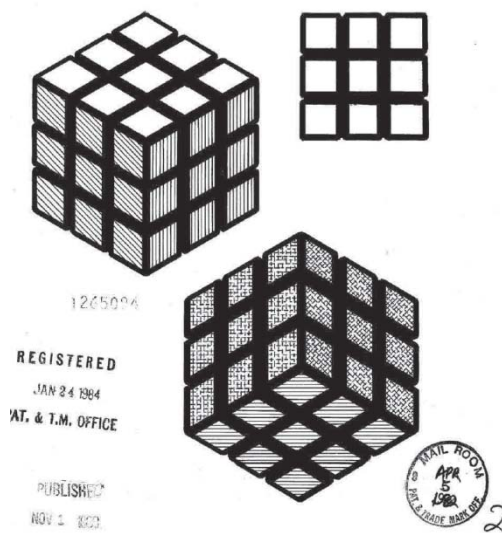
86. In August 1981, representatives from Moleculon and Ideal discussed the possibility of Ideal licensing the Nichols Patent. (Ex. 38, 1984 D. Del. Op., at FLAMBEAU002072 (594 F. Supp. 1420, 1424)).
87. Moleculon filed suit against Ideal for patent infringement of the Nichols Patent in May 1982 (“the Nichols Patent Litigation”). (Ex. 38, 1984 D. Del. Op., at FLAMBEAU002071-72 (594 F. Supp. 1420, 1424)).
88. During the Nichols Patent Litigation, Ideal was acquired by CBS, Inc. (“CBS”) and CBS was named as the defendant. (Ex. 38, 1984 D. Del. Op., at FLAMBEAU002072 (594 F. Supp. 1420, 1424); *see also* Ex. 66, Cube is a Problem to CBS, New York Times (1984), at FLAMBEAU002026; Ex. 61, Kremer Dep. Tr., at 12:9-20, 33:25-34:3).
89. In October 1984, the United States District Court for the District of Delaware issued an opinion finding claims of the Nichols Patent valid and infringed by variations of the Rubik’s Cube. (Ex. 38, 1984 D. Del. Op., at FLAMBEAU002086 (594 F. Supp. 1420, 1441)).
90. In May 1986, the United States Court of Appeals for the Federal Circuit issued an opinion affirming the district court’s finding that claims of the Nichols Patent were not invalid, affirming the finding that the 2x2 Rubik’s Cube infringed, and vacating and remanding on the finding that the 3x3 and 4x4 Rubik’s Cubes infringed. (Ex. 40, 5/16/1986 Opinion issued in *Moleculon Research Corporation v. CBS, Inc.*, No. 85-2096 (Fed. Cir.), at FLAMBEAU002062).
91. In July 1987, the United States District Court for the District of Delaware issued an opinion and order finding that the 3x3 and 4x4 Rubik’s Cubes infringe the Nichols Patent. (Ex. 41, 7/6/1987 Opinion & Order issued in *Moleculon Research Corporation v. CBS, Inc.*, No. 82-289 (D. Del.), at FLAMBEAU002091).

92. In April 1989, the United States Court of Appeals for the Federal Circuit issued an opinion reversing the district court's finding that the 3x3 and 4x4 Rubik's Cubes infringe the Nichols Patent. (Ex. 42, 4/5/1989 Opinion issued in *Moleculon Research Corporation v. CBS, Inc.*, No. 87-1594 (Fed. Cir.), at FLAMBEAU002096).

Prosecution of the '094 Registration

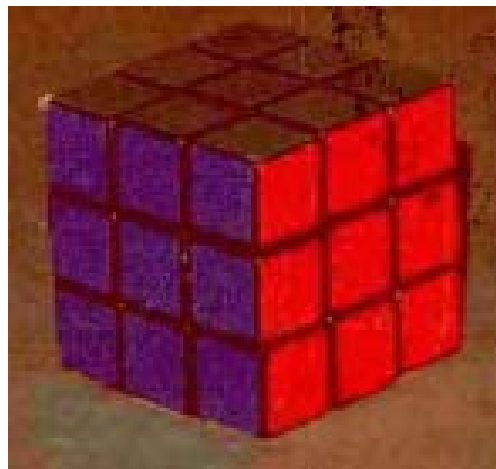
93. In April 1982, Ideal's patent counsel filed an application to register a trademark on Ideal's behalf for puzzle cubes consisting of "a black cube having nine color patches on each of its six faces with the color patches on each face being the same and consisting of the colors red, white, blue, green, yellow, and orange," which was assigned Application No. 358,308. (Ex. 31, 4/5/1982 Application ("the '308 Application"), at FLAMBEAU000039-42; Ex. 15, Roberts Decl., ¶ 30; Ex. 61, Kremer Dep. Tr., at 12:9-20, 57:24-58:3, 58:7; Ex. 63, Simms Dep. Tr., at 15:17-20, 60:22-61:1).

94. Ideal submitted with the '308 Application the following drawing lined for the colors red, green, orange, blue, and yellow:



(Ex. 31, '308 Application, at FLAMBEAU000039, FLAMBEAU000249; Ex. 16, Loetz Rep., ¶ 38; Ex. 15, Roberts Decl., ¶ 30).

95. Ideal submitted with the '308 Applications the following photographs of the puzzle cubes that it contended used the applied-for trademark:



(Ex. 31, '308 Application, at FLAMBEAU000040, FLAMBEAU000253-257; Ex. 16, Loetz Rep., ¶ 39; Ex. 61, Kremer Dep. Tr., at 12:9-20, 57:24-58:3, 58:7, 58:12-59:3, 59:12-19).

96. The photographs Ideal submitted with the '308 Application showed the white face of the 3x3 Rubik's Cube adjacent to the yellow and orange faces. (Ex. 31, '308 Application, at FLAMBEAU000040, FLAMBEAU000253-257; Ex. 16, Loetz Rep., ¶ 39; Ex. 61, Kremer Dep. Tr., at 12:9-20, 57:24-58:3, 58:7, 58:12-59:3, 59:12-19, 99:25-100:9).

97. The photographs Ideal submitted with the '308 Application showed the red face was adjacent to the blue and green faces. (Ex. 31, '308 Application, at FLAMBEAU000040, FLAMBEAU000253-257; Ex. 16, Loetz Rep., ¶ 39; Ex. 61, Kremer Dep. Tr., at 12:9-20, 57:24-58:3, 58:7, 58:12-59:3, 59:12-19).

98. The examiner initially refused registration in an office action dated on or about July 27, 1982. (Ex. 32, 7/27/1982 Office Action; Ex. 15, Roberts Decl., ¶ 31; Ex. 61, Kremer

Dep. Tr., at 12:9-20, 75:5-17, 79:6-14; Ex. 63, Simms Dep. Tr., at 15:17-20, 63:10-19, 64:1-7).

99. The examiner initially refused registration “because the design sought to be registered appears to be the configuration of applicant's goods and the configuration appears to be primarily functional in nature.” (Ex. 32, 7/27/1982 Office Action; Ex. 15, Roberts Decl., ¶ 31; Ex. 63, Simms Dep. Tr., at 15:17-20, 63:10-19, 64:1-7).

100. Ideal filed a response to the July 27, 1982 office action on or about September 7, 1982. (Ex. 33, 9/7/1982 Response; Ex. 15, Roberts Decl., ¶ 32; Ex. 63, Simms Dep. Tr., at 15:17-20, 64:21-65:1).

101. In its September 7, 1982 response, Ideal changed its identification of goods to “three dimensional puzzles.” (Ex. 33, 9/7/1982 Response, at FLAMBEAU000044; Ex. 63, Simms Dep. Tr., at 15:17-20, 65:18-22).

102. In its September 7, 1982 response, Ideal conceded that the mark sought for registration is a configuration of the goods. (Ex. 33, 9/7/1982 Response, at FLAMBEAU000044; Ex. 63, Simms Dep. Tr., at 15:17-20, 65:18-22).

103. In its September 7, 1982 response, Ideal argued that the applied-for design was not functional because “the design features of applicant’s product, as shown in the drawings, are not essential to effective competition or to any other factor.” (Ex. 33, 9/7/1982 Response, at FLAMBEAU000046).

104. In its September 7, 1982 response, Ideal argued that the applied-for design was not functional because “Cube puzzles such as manufactured by applicant can be formed of any color plastic material desired. They need not be formed of black. The black color of the plastic which forms the distinctive black grid pattern of the trademark serve

absolutely no function in the use of the product.” (Ex. 33, 9/7/1982 Response, at FLAMBEAU000046).

105. In its September 7, 1982 response, Ideal argued that the applied-for design was not functional because “Likewise, the color patches on the faces of the product are not functional. The color patches need not be square as used by applicant nor need they be colored.” (Ex. 33, 9/7/1982 Response, at FLAMBEAU000046).

106. In its September 7, 1982 response, Ideal argued that the applied-for design was not functional because “And, if colored, they need not be the precise colors used by applicant.” (Ex. 33, 9/7/1982 Response, at FLAMBEAU000046).

107. Ideal cited three court decisions in its September 7, 1982 response that it claimed established the non-functionality of the applied-for design. (Ex. 33, 9/7/1982 Response, at FLAMBEAU000047).

108. As of August 17, 1982, all of the stock and trademark rights of Ideal were acquired by CBS. (Ex. 35, 5/31/1983 Response, at FLAMBEAU000099).

109. Ideal assigned the ‘308 Application to CBS in August or September 1982. (Ex. 37, ‘094 Registration (CBS, Inc. listed as “assignee of Ideal Toy Corporation”); Ex. 61, Kremer Dep. Tr., at 12:9-20, 197:3-9; Ex. 63, Simms Dep. Tr., at 15:17-20, 77:18-24).

110. The examiner refused the registration a second time in an office action dated on or about January 17, 1983. (Ex. 34, 1/17/1983 Office Action; Ex. 15, Roberts Decl., ¶ 33; Ex. 61, Kremer Dep. Tr., at 12:9-20, 79:19-25, 80:14-20, 80:25-81:1; Ex. 63, Simms Dep. Tr., at 15:17-20, 78:12-14, 79:6-23).

111. The examiner stated “the design sought to be registered appears to be the configuration of the applicant’s goods and the configuration appears to be primarily functional in nature.” (Ex. 34, 1/17/1983 Office Action).

112. The examiner noted that the decisions Ideal had cited in its September 7, 1982 response involved preliminary injunctions. (Ex. 34, 1/17/1983 Office Action).
113. The examiner ordered in her January 17, 1983 office action that “Applicant must set forth the registration number of any patents which cover the goods in the application.” (Ex. 34, 1/17/1983 Office Action; Ex. 15, Roberts Decl., ¶ 34; Ex. 63, Simms Dep. Tr., at 15:17-20, 79:24-80:20).
114. The examiner’s January 17, 1983 request for “any patents which cover the goods in the application” included foreign patents. (Ex. 63, Simms Dep. Tr., at 15:17-20, 81:5-11, 82:2-5, 82:10-25).
115. CBS (or Ideal on its behalf) filed a response to the January 17, 1983 office action on or about May 31, 1983. (Ex. 35, 5/31/1983 Response; Ex. 15, Roberts Decl., ¶ 35; Ex. 63, Simms Dep. Tr., at 15:17-20, 83:1-11).
116. In the May 31, 1983 response, neither Ideal nor CBS set forth the registration numbers of any patents which cover three dimensional puzzles. (Ex. 35, 5/31/1983 Response; Ex. 15, Roberts Decl., ¶¶ 38, 49).
117. Ideal or CBS cited two court decisions—*In the matter of Certain Puzzle Cubes* and *CBS, Inc. v. Logical Games, Inc.*—and asserted they were “determinative as to the issue of non-functionality.” (Ex. 35, 5/31/1983 Response, at FLAMBEAU000099-100).
118. The decision from *In the matter of Certain Puzzle Cubes* submitted by CBS referenced the ‘062 Rubik Patent, but no other patent. (Ex. 35, 5/31/1983 Response, at FLAMBEAU000101, FLAMBEAU000125-126).
119. The decision from *In the matter of Certain Puzzle Cubes* submitted by Ideal or CBS mistakenly stated that Ideal “do[es] not have any patent rights in the United States to the puzzle cube.” (Ex. 35, 5/31/1983 Response, at FLAMBEAU000112, n.13; Ex. 63,

Simms Dep. Tr., at 15:17-20, 73:17-74:1; Ex. 25, Silbermintz Patent, at FLAMBEAU001365; Ex. 28, Sebesteny Patent, at FLAMBEAU001383).

120. The decision from *CBS, Inc. v. Logical Games, Inc.* submitted by Ideal or CBS did not reference patents. (Ex. 35, 5/31/1983 Response, at FLAMBEAU000152-161).

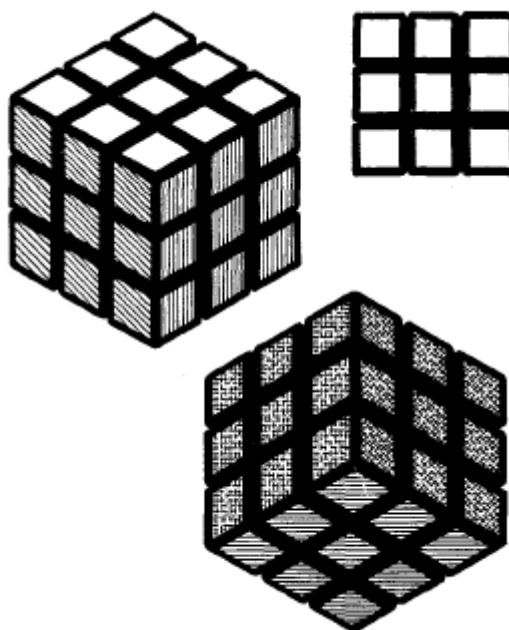
121. After CBS's May 31, 1983 response, the '308 Application was re-assigned to a new examiner and the new examiner approved the applied-for mark for publication the same day. (Ex. 15, Roberts Decl., ¶ 45; Ex. 36, Notice of Publication; Ex. 48, TSDR Printout, at FLAMBEAU000003).

122. U.S. Registration No. 1,265,094 issued to CBS, Inc. on January 24, 1984 ("the '094 Registration"). (Ex. 37, '094 Registration; Ex. 15, Roberts Decl., ¶ 46).

123. The '094 Registration is for "three dimensional puzzles." (Ex. 37, '094 Registration; *see also* Ex. 60, Riehl Dep. Tr., at 10:17-20, 56:23-57:3, 57:12-13).

124. The '094 Registration states "the mark consists of a black cube having nine color patches on each of its six faces with the color patches on each face being the same and consisting of the colors red, white, blue, green, yellow and orange." (Ex. 37, '094 Registration; Ex. 60, Riehl Dep. Tr., at 10:17-20, 56:23-57:3, 57:12-13, 60:18-24; Ex. 61, Kremer Dep. Tr., at 12:9-20, 54:14-18, 55:25-56:15).

125. The '094 Registration provides the following drawing lined for the colors red, green, orange, blue and yellow:



(Ex. 37, '094 Registration).

126. CBS assigned the '094 Registration to Seven Towns in 1986. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 196:21-197:2; Ex. 48, TSDR Printout, at FLAMBEAU000003-4).

127. Seven Towns assigned the '094 Registration to RBL in 2013. Ex. 61, Kremer Dep. Tr., at 12:9-20, 197:10-13; Ex. 48, TSDR Printout, at FLAMBEAU000003-4).

Speed Cubing & the World Cubing Association

128. By October 1982, it was reported that “the cube has become passe” and the trend for sales of the Rubik’s Cube “clearly is downward.” (Ex. 73, Rubik’s Cube: A Craze Ends, New York Times (Oct. 30, 1982).

129. By 1984, it was reported that popularity of the 3x3 Rubik’s Cube had “dropped off dramatically.” (Ex. 66, Cube is a Problem to CBS, New York Times (1984), at FLAMBEAU002026; Ex. 62, Gottlieb Dep. Tr., at 309:16-310:1, 310:8-311:6).

130. Speed cubing is an activity where individuals strive to solve three dimensional puzzles as quickly as possible. (Ex. 16, Loetz Rep., ¶ 97; Ex. 60, Riehl Dep. Tr., at 10:17-20, 192-193:20, 202:6-8, 220:15-221:4, 222:11-14, 225:3-10, 226:3-8; Ex. 61, Kremer Dep. Tr., at 12:9-20, 216:12-22; Ex. 63, Simms Dep. Tr., at 15:17-20, 148:2-10; Ex. 69, RBL Req. Ad. Resp., No. 16).
131. The popularity of speed cubing has grown exponentially in recent years. (Ex. 58, Children of the Cube, New York Times (Aug. 15, 2018), at FLAMBEAU002607; *see also* Ex. 16, Loetz Rep., ¶ 99-100).
132. The World Cubing Association (“WCA”), the largest organization for speed cubing, formed in 2004 to approve and administer speed cubing events and competitions. (Ex. 58, Children of the Cube, New York Times (Aug. 15, 2018), at FLAMBEAU002613; *see also* Ex. 16, Loetz Rep., ¶ 98; Ex. 60, Riehl Dep. Tr., at 10:17-20, 203:14-22; Ex. 61, Kremer Dep. Tr., at 12:9-20, 239:20-240:3).
133. In 2017, the number of first-time competitors at WCA events was about 24,000, which was five times more than the number of first-time competitors at WCA events in 2012. (Ex. 58, Children of the Cube, New York Times (Aug. 15, 2018), at FLAMBEAU002607; Ex. 16, Loetz Rep., ¶ 99).
134. The WCA publishes regulations that apply to all official competitions sanctioned by the WCA (“WCA Regulations”). (Ex. 9, WCA Regulations, at FLAMBEAU002484; Ex. 60, Riehl Dep. Tr., at 10:17-20, 247:2-8).
135. Competitors at WCA events may use any brand of three-dimensional puzzle, so long as the puzzle conforms with Article 3 of the WCA Regulations. (Ex. 9, WCA Regulations, at FLAMBEAU002488-2489; *see also* Ex. 60, Riehl Dep. Tr., at 10:17-20, 230:7-231:3, 257:18-22).

136. Article 3a of WCA Regulations provides:

- 3a) Competitors must provide their own puzzles for the competition.
 - 3a1) Competitors must be ready to submit their puzzles when they are called (see Regulation 2u).
 - 3a2) Puzzles must be fully operational, such that normal scrambling is possible.
 - 3a3) Polyhedral puzzles must use a color scheme with one unique color per face in the solved state. Each puzzle variation must have moves, states, and solutions functionally identical to the original puzzle.

Ex. 9, WCA Regulations, at FLAMBEAU002488).

137. Article 3d of the WCA Regulations provides:

- 3d) Puzzles must have colored parts, which define the color scheme of the puzzle and must be one and only one of the following: colored stickers, colored tiles, colored plastic, or painted/printed colors. All colored parts of a puzzle must be made of a similar material.
 - 3d1) For competitors with a medically documented visual disability, the following exceptions apply:
 - 3d1a) Blind competitors may use textured puzzles with different textures on different faces. Each face should have a distinct color, to aid in scrambling and judging.
 - 3d1b) Color blind competitors who cannot distinguish between the necessary number of colors may use colored parts with patterns, if it has been explicitly approved according to Regulation 2s. Patterns may come from stickers or be drawn.
 - 3d2) The colors of the colored parts must be solid, with one uniform color per face. Each color must be clearly distinct from the other colors.

Ex. 9, WCA Regulations, at FLAMBEAU002488).

138. Article 3h of the WCA Regulations provides:

- 3h) Modifications that enhance the basic concept of a puzzle are not permitted. Modified versions of puzzles are permitted only if the modification does not make any additional information available to the competitor (e.g. orientation or identity of pieces), compared to an unmodified version of the same puzzle.
 - 3h1) "Pillowed" puzzles are permitted.
 - 3h2) Puzzles whose colored plastic is visible inside the puzzle (e.g. "stickerless" puzzles) are permitted. This does not include the following puzzles:
 - 3h2a) Puzzles with transparent parts. Exception: An overlay sticker (see Regulation 3l).
 - 3h3) Any modifications to a puzzle that result in poor performance by a competitor are not grounds for additional attempts.
 - 3h4) For Clock, custom "inserts" (the same shape and size as the traditional paper inserts) are permitted, at the discretion of the WCA Delegate. The inserts must have a clear indication of 12 o'clock that matches the original inserts.

Ex. 9, WCA Regulations, at FLAMBEAU002488).

139. Article 3j of the WCA Regulations provides:

- 3j) Puzzles must be clean, and must not have any markings, elevated pieces, damage, or other differences that significantly distinguish any piece from a similar piece. Exception: a logo (see Regulation 3i).
- 3j1) Puzzles are permitted to have reasonable wear, at the discretion of the WCA Delegate.
 - 3j2) Definition: Two pieces are similar to each other if they are identical in shape and size, or mirrored in shape and identical in size.
 - 3j3) Corrugated/textured parts which permit the orientation of pieces to be distinguished by feel are not permitted for blindfolded events.

Ex. 9, WCA Regulations, at FLAMBEAU002488).

140. Article 3l of the WCA Regulations provides:

- 3l) A puzzle may have a logo on a colored part. If it does, it must have at most one colored part with a logo. Exception: For blindfolded events, a puzzle must not have a logo.
- 3l1) The logo must be placed on a center piece. Exceptions for puzzles that do not have center pieces:
 - 3l1a) For Pyraminx and 2x2x2, the logo may be on any piece.
 - 3l1b) For Square-1, the logo must be on a piece in the equatorial slice.
 - 3l2) The logo may be embossed, engraved, or consist of an overlay sticker.

(Ex. 9, WCA Regulations, at FLAMBEAU002489).

141. To be eligible for WCA 3x3 puzzle cube events, the puzzle “must use a color scheme with one unique color per face in the solved state.” (Ex. 9, WCA Regulations, at FLAMBEAU002488).

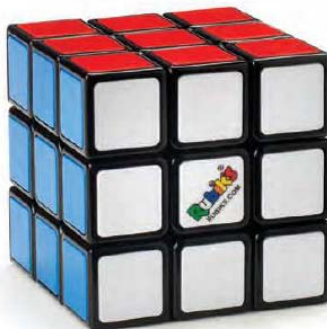
142. To be eligible for WCA 3x3 puzzle cube events, the puzzle “must have colored parts” and the “colors of the colored parts must be solid, with one uniform color per face” and “[e]ach color must be clearly distinct from the other colors.” (Ex. 9, WCA Regulations, at FLAMBEAU002488).

143. To be eligible for WCA 3x3 puzzle cube events, the puzzle “must be clean, and must not have any markings, elevated pieces, damage, or other differences that significantly distinguish any piece from a similar piece.” (Ex. 9, WCA Regulations, at FLAMBEAU002488).

144. To be eligible for WCA 3x3 puzzle cube events, any logo on the puzzle “must be placed on a center piece.” (Ex. 9, WCA Regulations, at FLAMBEAU002489).
145. Because of the nature of speedcubing, competitors are interested in using cubes that can be solved most quickly. (Ex. 16, Loetz Rep., ¶ 101; Ex. 60, Riehl Dep. Tr., at 10:17-20, 110:6-18, 110:24-111:9, 112:21-113:10, 181:16-182:4; Ex. 61, Kremer Dep. Tr., at 12:9-20, 216:12-22; *see also* Ex. 62, Gottlieb Dep. Tr., at 186:19-187:7, 188:11-189:3, 195:18-196:14, 197:1-10, 261:17-262:2).
146. RBL targets speedcubing competitors with its products. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 224:13-22, 225:5-11; *see also* Ex. 62, Gottlieb Dep. Tr., at 250:1-6, 250:10-21, 252:14-25, 253:9-13, 268:3-15).
147. RBL sponsors WCA competitions to promote its products. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 239:6-17).
148. 3x3 puzzle cubes sold under the “Valk,” “GAN,” and “MoYu” brands are commonly recommended for speedcubing. (Ex. 16, Loetz Rep., ¶ 101).

RBL and the RUBIK’S Brand

149. RBL licenses toy makers and sellers to use the RUBIK’S brand and the 3x3 Cube Design. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 15:9-13, 163:7-12, 166:25-167:13, 170:12-24, 171:4, 171:10-14, 171:20-25, 172:6-10; Ex. 60, Riehl Dep. Tr., at 10:17-20, 49:10-18; Ex. 16, Loetz Rep., ¶ 29).
150. One of RBL’s licensed products is the 3x3 Rubik’s Cube, a 3x3 puzzle cube with black 90-degree segments and square, solid color patches on each side in the solved state:



(Ex. 16, Loetz Rep., ¶¶ 29-30; Ex. 60, Riehl Dep. Tr., at 10:17-20, 26:8-13, 53:5-11, 62:10-13, 65:3-16, 71:19-72:6, 109:6-19, 137:13-138:11; Ex. 63, Simms Dep. Tr., at 15:17-20, 85:16-86:5).

151. RBL requires its licensees to follow a style guide. (Ex. 60, Riehl Dep. Tr., at 10:17-20, 84:15-20, 85:9-15; Ex. 70, Style Guide).

152. RBL's style guide requires a specific color scheme for the 3x3 Rubik's Cube. (Ex. 60, Riehl Dep. Tr., at 10:17-20, 84:15-20, 85:9-15, 145:8-146:21; Ex. 16, Loetz Rep., ¶¶ 32-33; Ex. 70, Style Guide, at RBL_003628).

153. RBL's style guidelines require the 3x3 Rubik's Cube to have a black base and uniform, square patches in six colors specified by Pantone color number. (Ex. 60, Riehl Dep. Tr., at 10:17-20, 84:15-20, 85:9-15, 145:8-146:21; Ex. 16, Loetz Rep., ¶ 33; Ex. 74, Geek Took Kit, at BOSTONA_000040; Ex. 46, Pantone Color Scheme; Ex. 47, Using Official Rubik's Cube Colors).

154. RBL's style guidelines currently require the 3x3 Rubik's Cube to have the white face opposite the yellow face, the red face opposite the orange face, and the blue face opposite the green face, and that is how the 3x3 Rubik's Cubes are currently marketed and sold. (Ex. 44, Rubik's Colour Orientation; Ex. 61, Kremer Dep. Tr., at 12:9-20, 60:24-61:9, 64:2-7; Ex. 60, Riehl Dep. Tr., at 10:17-20, 68:4-7, 69:13-20, 69:23-70:6; Ex. 16, Loetz Rep., ¶ 32).

155. RBL changed the orientation of the colors for the 3x3 Rubik's Cube to have the white face opposite the yellow face because it was aesthetically more pleasing. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 62:3-16).
156. RBL's style guide requires the RUBIK'S name in the center of the white face of the 3x3 Rubik's Cube. (Ex. 60, Riehl Dep. Tr., at 10:17-20, 84:15-20, 85:9-15, 85:25-86:7, 91:19-20, 91:24-92:2; Ex. 16, Loetz Rep., ¶¶ 32, 34; Ex. 70, Style Guide, at RBL_003627, RBL_003629; Ex. 74, Geek Took Kit, at BOSTONA_000039).
157. The RUBIK'S name is currently featured on the center white segment of the 3x3 Rubik's Cube. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 135:18-20, 267:22-268:7, 269:22-270:10; Ex. 60, Riehl Dep. Tr., at 10:17-20, 76:12-18, 76:25-77:15, 111:10-16, 126:19-22, 141:13-25; Ex. 16, Loetz Rep., ¶ 34; Ex. 62, Gottlieb Dep. Tr., at 22:2-12, 22:22-23:4; Ex. 63, Simms Dep. Tr., at 15:17-20, 129:2-7; Ex. 69, RBL Req. Ad. Resp., No. 27).
158. RBL's corporate representative could not think of a time when a RBL licensee or a retailer promoted the 3x3 Rubik's Cube without the Rubik's name. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 135:18-20, 267:22-268:7, 269:22-270:10; Ex. 60, Riehl Dep. Tr., at 10:17-20, 76:12-18, 76:25-77:15, 111:10-16, 126:19-22).
159. The RUBIK'S name is currently featured on the packaging for the 3x3 Rubik's Cube in multiple locations. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 135:21-24, 265:17-266:17, 268:8-10, 268:16-23, 269:19-21; Ex. 60, Riehl Dep. Tr., at 10:17-20, 79:16-21, 81:9-14, 81:25-82:4, 111:17-112:2; Ex. 16, Loetz Rep., ¶ 34; Ex. 62, Gottlieb Dep. Tr., at 22:2-12, 22:22-23:4; Ex. 63, Simms Dep. Tr., at 15:17-20, 129:2-7; Ex. 69, RBL Req. Ad. Resp., No. 26).

160. RBL's corporate representative could not think of a time when a Rubik's Cube point of sale display that did not use the Rubik's name. (Ex. 60, Riehl Dep. Tr., at 10:17-20, 138:16-17, 138:21-139:14).

RBL's Promotional Materials

161. RBL's product book states that Mr. Rubik's original invention was a "solid Cube [that] twisted and turned – and still it did not break or fall apart. With colourful stickers on its sides, the Cube got scrambled and thus emerged the first 'Rubik's Cube.'" (Ex. 43, Product Book, at RBL_000245; *see also* Ex. 60, Riehl Dep. Tr., at 10:17-20, 127:2-10).

162. RBL's product book states "Colour is a key aspect of the DNA of Rubik's Cube, with its multiple squares of red, orange, yellow, green, blue and white." (Ex. 43, Product Book, at RBL_000246; *see also* Ex. 60, Riehl Dep. Tr., at 10:17-20, 127:2-10).

163. RBL's product book and website state "The Rubik's Cube is the classic colour-matching puzzle that's a great mental challenge at home or on the move. Twist and turn the sides of the Cube so that each of the six faces only have one colour." (Ex. 43, Product Book, at RBL_000260; Ex. 49, New Rubik's 3x3 Cube; *see also* Ex. 60, Riehl Dep. Tr., at 10:17-20, 127:2-10).

164. RBL's website states "the aim is to twist and turn the Rubik's Cube to return it to its original state, with every side having one solid colour." (Ex. 49, New Rubik's 3x3 Cube).

165. RBL publishes guides on how to solve the 3x3 Rubik's Cube on its website to download for free. (Ex. 50, How to solve the 3x3 Rubik's cube?; Ex. 60, Riehl Dep. Tr., at 10:17-20, 205:20-206:12; Ex. 69, RBL Req. Ad. Resp., No. 13; *see also* Ex. 62, Gottlieb Dep. Tr., at 95:17-23, 96:4-15 (confirming solving guide from official RBL website)).

166. RBL's Solution Guide for the 3x3 Rubik's Cube provides step-by-step instructions on how to solve the cube by using the six specific colors of the cube's pieces. (Ex. 51, Solution Guide 3x3 Rubik's Cube; Ex. 60, Riehl Dep. Tr., at 10:17-20, 205:20-207:6, 208:5-19, 208:24-209:15; Ex. 62, Gottlieb Dep. Tr., at 99:6-20; Ex. 69, RBL Req. Ad. Resp., No. 15; Ex. 16, Loetz Rep., ¶ 62).
167. RBL's Solution Guide for the 3x3 Rubik's Cube teaches center pieces are "pieces with one (1) color, there are six (6) center pieces located in the center of each side, center pieces do not move and represent the color of their side." (Ex. 51, Solution Guide 3x3 Rubik's Cube, at RBL_000662).
168. RBL's Solution Guide for the 3x3 Rubik's Cube teaches "center piece colours are always opposite each other: white opposite yellow; orange opposite red; green opposite blue." (Ex. 51, Solution Guide 3x3 Rubik's Cube, at RBL_000662).
169. RBL's Solution Guide for the 3x3 Rubik's Cube teaches "move the blue/white edge piece to the bottom (D) face, then rotate it on the bottom until it is directly under the blue center piece." (Ex. 51, Solution Guide 3x3 Rubik's Cube, at RBL_000664).
170. Entities and individuals other than RBL have created solving guides for 3x3 puzzle cubes that provide step-by-step instructions on how to solve the cube by using the colors of the cube's pieces. (Ex. 71, The Ideal Solution; Ex. 72, Scientific American, Magic Cubology; Ex. 16, Loetz Rep., ¶ 64 (discussing solving guide provided by Ideal).
171. RBL publishes lesson plans for educators to teach students how to solve a 3x3 puzzle cube by using the six specific colors of the cube's pieces. (E.g., Ex. 52, Lesson 1; Ex. 53, Lesson 2; Ex. 16, Loetz Rep., ¶ 63; Ex. 60, Riehl Dep. Tr., at 10:17-20, 205:20-206:12; Ex. 63, Simms Dep. Tr., at 15:17-20, 141:3-12).

172. RBL's Lesson 1 Plan explains how to use the 3x3 Rubik's Cube to "[h]ave students identify a specific color face" and "identify the color of the opposite face." (Ex. 52, Lesson 1, at RBL_000344).
173. RBL publishes a check list for solving the 3x3 Rubik's Cube. (Ex. 56, Check List for Solving the Rubik's Cube; Ex. 60, Riehl Dep. Tr., at 10:17-20, 214:8-24).
174. RBL's check list for solving the 3x3 Rubik's Cube lists stages of solving the cube based on matching the six specific colors of the pieces. (Ex. 56, Check List for Solving the Rubik's Cube; Ex. 16, Loetz Rep., ¶ 66; Ex. 60, Riehl Dep. Tr., at 10:17-20, 214:8-24, 215:19-22).
175. RBL provides instructions on how to solve the Rubik's Cube by the colors red, green, orange, blue, yellow, and white. (Ex. 63, Simms Dep. Tr., at 15:17-20, 137:5-138:8).

Flambeau & The Duncan Quick Cube

176. Flambeau's toy division, Duncan Toys Company, is a well-known and respected name in the toy industry. (Ex. 1, Burke Decl., ¶ 5; Ex. 60, Riehl Dep. Tr., at 10:17-20, 260:22-261:8; Ex. 61, Kremer Dep. Tr., at 12:9-20, 91:22-24, 92:11-18; Ex. 62, Gottlieb Dep. Tr., at 11:18-12:6, 12:13-18, 13:2-10; Ex. 63, Simms Dep. Tr., at 15:17-20, 31:25-32:15, 32:25-33:3; Ex. 64, Vollmar Dep. Tr., at 20:7-12).
177. Flambeau's DUNCAN mark has been continuously used since 1929. (Ex. 1, Burke Decl., ¶ 6).
178. Flambeau owns a U.S. Trademark Registration for DUNCAN for toys, games, and playthings. (Ex. 1, Burke Decl., ¶ 6; Ex. 2, U.S. Registration No. 5,920,928).
179. Flambeau's DUNCAN-branded Yo-Yo has been sold for decades and has been inducted into the National Toy Hall of Fame. (Ex. 1, Burke Decl., ¶ 5; *see also* Ex. 60,

Riehl Dep. Tr., at 10:17-20, 260:22-261:8; Ex. 62, Gottlieb Dep. Tr., at 11:18-12:6, 12:13-18, 13:2-10).

180. In 2015, Flambeau began looking into developing a DUNCAN-branded 3x3 puzzle cube for speed cubing. (Ex. 1, Burke Decl., ¶ 10).

181. Duncan reviewed catalogues from various manufactures, ordered samples, and selected a cube that had features favorable for speed cubing. (Ex. 1, Burke Decl., ¶ 11).

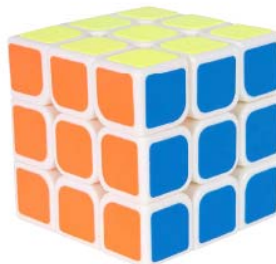
182. Flambeau branded the 3x3 puzzle cube it selected to sell as the “Duncan Quick Cube.” (Ex. 1, Burke Decl., ¶ 12).

183. Flambeau’s Duncan Quick Cube design was finalized after consulting with Flambeau’s legal counsel. (Ex. 1, Burke Decl., ¶ 15; Ex. 10, Berson Decl., ¶¶ 6-10).

184. Duncan’s Quick Cube design was adopted in good faith. (Ex. 1, Burke Decl., ¶ 15; *see also* Ex. 10, Berson Decl., ¶¶ 6-10).

185. Flambeau began selling the Duncan Quick Cube in March 2016. (Ex. 1, Burke Decl., ¶¶ 27-28).

186. The Duncan Quick Cube has a white base:



(Ex. 1, Burke Decl., ¶ 13; Ex. 6, Quick Cubes; Ex. 7, Quick Cube 3x3; *see also* Ex. 3, Quick Cube & Packaging).

187. The Duncan Quick Cube has bright, fluorescent color patches. (Ex. 1, Burke Decl., ¶ 13; Ex. 3, Quick Cube & Packaging).

188. The Duncan Quick Cube's white face is opposite the yellow face. (Ex. 1, Burke Decl., ¶ 13).
189. Because the Duncan Quick Cube is for speed cubing, the inner corners of the smaller cube segments and patches are cut away to allow "corner cutting" for faster solving. (Ex. 1, Burke Decl., ¶¶ 14, 18; Ex. 3, Quick Cube & Packaging).
190. Flambeau promotes the Duncan Quick Cube for speedcubing: "The Duncan® Quick Cube™ features smooth, easy turning design to allow the user to 'corner cut' for superior performance and play." (Ex. 1, Burke Decl., ¶ 18; Ex. 6, Quick Cubes; Ex. 8, Duncan Travel / Brain Games; Ex. 62, Gottlieb Dep. Tr., at 249:19-25).
191. Flambeau promotes the Duncan Quick Cube's "corner-cutting design for speed solving." (Ex. 1, Burke Decl., ¶ 18; Ex. 8, Duncan Travel / Brain Games).
192. The Duncan Quick Cube is always branded with the DUNCAN house mark on its white face. (Ex. 1, Burke Decl., ¶ 16; *see also* Ex. 60, Riehl Dep. Tr., at 10:17-20, 262:8-12, 263:18-25, 270:14-25; Ex. 62, Gottlieb Dep. Tr., at 24:22-25:5; Ex. 63, Simms Dep. Tr., at 15:17-20, 128:24-129:1).
193. The Duncan Quick Cube's packaging contains the DUNCAN house mark in several locations. (Ex. 1, Burke Decl., ¶ 17; Ex. 3, Quick Cube & Packaging; Ex. 4, Duncan Quick Cube 3902QC; Ex. 5, Duncan Quick Cube 3901QC; *see also* Ex. 60, Riehl Dep. Tr., at 10:17-20, 262:22-263:7, 271:2-3, 271:8-9; Ex. 61, Kremer Dep. Tr., at 12:9-20, 135:14-17; Ex. 62, Gottlieb Dep. Tr., at 24:22-25:5; Ex. 63, Simms Dep. Tr., at 15:17-20, 128:21-23).
194. Flambeau does not use either the word mark RUBIK's or the word mark RUBIK's CUBE for its Duncan Quick Cube or otherwise. (Ex. 60, Riehl Dep. Tr., at 10:17-20, 270:14-25; Ex. 61, Kremer Dep. Tr., at 12:9-20, 91:10-17).

The 3x3 Cube Design

195. RBL's 3x3 Cube Design consists of a black 3x3 puzzle cube having nine square-shaped color patches on each of its six faces, with the color patches on each face being the same when the puzzle is in the start or solved position, and consisting of the colors red, white, blue, green, yellow, and orange. (Dkt. 1, Complaint, ¶¶ 10, 15; Ex. 67, RBL Interrog. Resp., No. 4; Ex. 37, '094 Registration; Ex. 60, Riehl Dep. Tr., at 10:17-20, 56:23-57:3, 57:12-13, 60:18-24; Ex. 61, Kremer Dep. Tr., at 12:9-20, 54:14-18, 55:25-56:15, 111:8-112:3, 112:10-11; Ex. 63, Simms Dep. Tr., at 15:17-20, 40:12-18, 45:21-46:4).
196. RBL's 3x3 Cube Design specifies three rows of three smaller cube segments on each of its six faces. (Dkt. 1, Complaint, ¶¶ 10, 15; Ex. 67, RBL Interrog. Resp., No. 4; Ex. 37, '094 Registration; Ex. 60, Riehl Dep. Tr., at 10:17-20, 56:23-57:3, 57:12-13, 60:18-24; Ex. 61, Kremer Dep. Tr., at 12:9-20, 54:14-18, 55:25-56:15; Ex. 68, RBL Interrog. Resp., No. 24).
197. RBL's 3x3 Cube Design specifies square color patches in three primary colors (red, blue, and yellow), two secondary colors (green and orange), and white. (Dkt. 1, Complaint, ¶¶ 10, 15; Ex. 67, RBL Interrog. Resp., No. 4; Ex. 37, '094 Registration; *see also* Ex. 60, Riehl Dep. Tr., at 10:17-20, 311:2-18; Ex. 68, RBL Interrog. Resp., No. 24).

Functionality

198. Lee Loetz has over 23 years of experience in toy design, working at and with leaders in the toy industry like Walt Disney Company and Fischer Price. (Ex. 16, Loetz Rep., ¶¶ 6-8).
199. Mr. Loetz has taught toy design at the college level, including teaching color theory as it applies to toys and other consumer products. (Ex. 16, Loetz Rep., ¶ 10).

200. Mr. Loetz is the named inventor on at least five utility patents claiming inventions related to toy products and at least one design patent for the design of a toy product. (Ex. 16, Loetz Rep., ¶ 12).

201. Mr. Loetz analyzed the 3x3 Cube Design and determined that it is functional in nature. (Ex. 16, Loetz Rep., ¶¶ 51-96).

202. The 3x3 Cube Design is functional in nature. (Ex. 16, Loetz Rep., ¶¶ 51-96).

Intended Use and Purpose

203. The 3x3 Cube Design is essential to the use or purpose of a 3x3 puzzle cube. (Ex. 16, Loetz Rep., ¶¶ 52-67).

204. The intended use and purpose of a 3x3 puzzle cube, like the 3x3 Rubik's Cube, is for it to be scrambled and solved. (Ex. 16, Loetz Rep., ¶ 52; Ex. 63, Simms Dep. Tr., at 15:17-20, 34:24-35:4, 38:1-4, 69:22-70:3; Ex. 68, RBL Interrog. Resp., No. 23).

205. The play value of the 3x3 Rubik's Cube is to scramble the smaller colored segments and then solve the puzzle by matching the like-colored segments on each side of the larger cube. (Ex. 16, Loetz Rep., ¶¶ 53-55; Ex. 63, Simms Dep. Tr., at 15:17-20, 142:7-18).

206. The smaller cube segments of the 3x3 Cube Design allow a 3x3 puzzle cube to be twisted and turned. (Ex. 16, Loetz Rep., ¶¶ 56-60).

207. The smaller cube segments of the 3x3 Cube Design allow a 3x3 puzzle cube to be scrambled and solved. (Ex. 16, Loetz Rep., ¶¶ 56-60).

208. Without separate smaller segments, a 3x3 puzzle cube could not be twisted or turned. (Ex. 16, Loetz Rep., ¶¶ 57-58).

209. Without separate smaller segments, a 3x3 puzzle cube could not be scrambled and solved. (Ex. 16, Loetz Rep., ¶¶ 57-58).

210. The color patches of the 3x3 Cube Design allow a 3x3 puzzle cube to be scrambled and solved. (Ex. 16, Loetz Rep., ¶¶ 61-66; Ex. 60, Riehl Dep. Tr., at 10:17-20, 73:14-19, 73:24-74:9, 74:15-17, 76:5-10, 218:18-22, 219:25-220:6).

211. An all-black 3x3 puzzle cube could not be scrambled or solved. (Ex. 60, Riehl Dep. Tr., at 10:17-20, 215:23-216:5).

Quality of the Cube – Color v. Other Indicia

212. The 3x3 Cube Design improves the quality of a 3x3 puzzle cube. (Ex. 16, Loetz Rep., ¶¶ 72-96).

213. Color patches provide a simple and easy way to gauge whether a 3x3 puzzle cube is solved. (Ex. 16, Loetz Rep., ¶¶ 67-68; Ex. 60, Riehl Dep. Tr., at 10:17-20, 73:14-19, 73:24-74:9, 74:15-17, 76:5-10).

214. Color is more quickly and easily discerned than non-color indicia like numbers and shapes. (Ex. 16, Loetz Rep., ¶¶ 67, 88-92; *see also* Ex. 60, Riehl Dep. Tr., at 10:17-20, 119:3-9; *see also* Ex. 62, Gottlieb Dep. Tr., at 168:11-18, 169:2-8, 169:23-170:1, 170:8-12, 170:19-22).

215. Matching segments of a puzzle cube by numbers or shapes is not as intuitive as matching segments by color. (Ex. 16, Loetz Rep., ¶¶ 93-94; *see also* Ex. 60, Riehl Dep. Tr., at 10:17-20, 119:3-9; *see also* Ex. 62, Gottlieb Dep. Tr., at 130:8-14 (using letters instead of colors “changes the play pattern”).

216. A cube with different numbers on its smaller cube segments may not require matching, but ordering. (Ex. 16, Loetz Rep., ¶ 93).

217. Mr. Rubik said that he used color on his puzzle cube because “it was necessary to ... identify the elements” and color is “very simple and ... very easy to distinguish.” (Ex. 16, Loetz Rep., ¶ 68).

218. Mr. Rubik said that color was “the most simple way to mark the solved state” of his puzzle cube. (Ex. 16, Loetz Rep., ¶ 70; Ex. 62, Gottlieb Dep. Tr., at 80:19-82:10; Ex. 57, Ruwix).

Quality of the Cube – Color Options

219. Color is a spectrum that can be represented by the color wheel. (Ex. 16, Loetz Rep., ¶ 74).

220. There are only three primary colors: red, yellow, and blue. (Ex. 16, Loetz Rep., ¶ 75).

221. Primary colors cannot be mixed or formed by any combination of other colors. (Ex. 16, Loetz Rep., ¶ 75).

222. There are only three secondary colors: green, orange, and purple. (Ex. 16, Loetz Rep., ¶ 76).

223. Each secondary color is derived by mixing two primary colors: blue and yellow make green; yellow and red make orange; red and blue make purple. (Ex. 16, Loetz Rep., ¶ 76).

224. There are twelve tertiary colors that are derived by mixing a primary and secondary color. (Ex. 16, Loetz Rep., ¶ 77).

225. In the toy-making context, primary and secondary colors are preferred over gray, white, and brown. (Ex. 62, Gottlieb Dep. Tr., at 217:1-11, 223:24-224:2, 225:1-226:5).

226. Analogous colors are any three adjacent colors on a twelve-part color wheel. (Ex. 16, Loetz Rep., ¶ 78).

227. Analogous colors are perceived as similar shades and thus have minimum contrast. (Ex. 16, Loetz Rep., ¶ 78).

228. Complementary colors are those which are directly opposite on the color wheel. (Ex. 16, Loetz Rep., ¶ 79).
229. Complementary colors are perceived as opposite shades and thus have maximum contrast. (Ex. 16, Loetz Rep., ¶ 79).
230. Colors with maximum contrast are those that fall opposite of each other on the color wheel (e.g., red and green, blue and orange, and yellow and purple). (Ex. 16, Loetz Rep., ¶¶ 79, 83; *see also* Ex. 62, Gottlieb Dep. Tr., at 173:25-174:3, 197:20-23, 198:14-17, 198:20-22, 200:11-24, 201:17-25).
231. There are eight maximum contrasting colors or shades: the shades of the six primary and secondary colors of the color wheel, plus white and black. (Ex. 16, Loetz Rep., ¶ 83).
232. It is well-known and accepted in the industry that children respond better to contrasting colors than to analogous colors. (Ex. 16, Loetz Rep., ¶ 80).
233. In the puzzle cube context, segments bearing six different colors with maximum contrast tell the user to match segments of the same color on each of the six sides. (Ex. 16, Loetz Rep., ¶ 82).
234. In the puzzle cube context, colors with maximum contrast allow the user to match segments of the same color *easily* because the user does not need to focus on discerning the colors and can focus exclusively on matching segments of the same color. (Ex. 16, Loetz Rep., ¶ 82).
235. In the puzzle cube context, colors with maximum contrast allow the user to match segments of the same color *quickly* because the user does not need to focus on discerning the colors and can focus exclusively on matching segments of the same color. (Ex. 16, Loetz Rep., ¶ 82).

236. Puzzle cubes that use maximum contrasting colors enable the solver to more quickly and easily distinguish the cube segments and match the segments by color than puzzle cubes that use less contrasting colors. (Ex. 16, Loetz Rep., ¶¶ 80-82, 157; Ex. 62, Gottlieb Dep. Tr., at 201:17-203:23, 204:8-205:12, 207:22-208:1, 209:9-22, 210:1-13; Exs. 54-55 (color wheels marked at Mr. Gottlieb's deposition)).
237. A solver would need to take more time and mental energy to distinguish the cube segments of a 3x3 puzzle cube that used less contrasting colors than to distinguish the cube segments of a 3x3 puzzle cube that used maximum contrasting colors. (Ex. 16, Loetz Rep., ¶¶ 80-82; Ex. 62, Gottlieb Dep. Tr., at 201:17-203:23, 204:8-205:12, 207:22-208:1, 209:9-22, 210:1-13, 301:10-17; Exs. 54-55 (color wheels marked at Mr. Gottlieb's deposition)).
238. A solver would need to take more time and mental energy to distinguish the cube segments of a 3x3 puzzle cube that used six shades of orange than to distinguish the cube segments of a 3x3 puzzle cube that used maximum contrasting colors. (Ex. 16, Loetz Rep., ¶¶ 80-82; Ex. 62, Gottlieb Dep. Tr., at 201:17-203:23, 204:8-205:12, 207:22-208:1, 209:9-22, 210:1-13, 301:10-17; Exs. 54-55 (color wheels marked at Mr. Gottlieb's deposition)).
239. Maximum contrasting colors on a puzzle cube are relevant to speed cubers because speed cubers are trying to go fastest. (Ex. 62, Gottlieb Dep. Tr., at 240:5-12).
240. The 3x3 Cube Design uses seven of the eight maximum contrasting colors or shades: black for its base and red, white, blue, green, yellow, and orange for its color patches. (Ex. 16, Loetz Rep., ¶¶ 73-79; Ex. 60, Riehl Dep. Tr., at 10:17-20, 311:2-18).

Utility Patents on the 3x3 Cube Design

241. Mr. Loetz charted the features of the 3x3 Cube Design against those features disclosed in twelve different utility patents covering puzzle cubes and found the utility patents disclosed all of the 3x3 Cube Design's features. (Ex. 16, Loetz Rep., ¶¶ 118-148 & Appendix 5; *see also* Ex. 62, Gottlieb Dep. Tr., at 83:24-84:4 (Mr. Gottlieb testified he is "really not knowledgeable in any area of the patent of the Rubik's Cube"); *see also id.* at 84:14-16 (did not review any patents), 84:20-85:6 (did not find patents "germane"), 85:7-11)).
242. Utility patents disclose puzzle cubes comprised of smaller cube segments so that the puzzle can be twisted and turned. (Ex. 16, Loetz Rep., ¶¶ 118-148 & Appendix 5).
243. Utility patents disclose comprising each face of a puzzle cube of three rows of three smaller cube segments. (Ex. 16, Loetz Rep., ¶¶ 118-148 & Appendix 5).
244. Utility patents disclose using color patches to scramble and solve a puzzle cube. (Ex. 16, Loetz Rep., ¶¶ 118-148 & Appendix 5).
245. RBL is aware of at least one U.S. Patent covering Mr. Rubik's puzzle cube invention. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 107:23-108:2).
246. RBL is aware of at least one Hungarian Patent covering Mr. Rubik's puzzle cube invention. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 187:23-188:4).
247. RBL is aware of a Japanese Patent on a 3x3 puzzle cube. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 108:23-109:14).
248. RBL advertised that its 3x3 Rubik's Cube was patented. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 95:15-18).

249. RBL removed references to the 3x3 Rubik's Cube being patented because the patent rights are no longer in force. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 96:14-19, 96:25-97:6).

Lack of Alternatives to the 3x3 Cube Design

250. A cube is more easily handled and manipulated than other shapes, like a sphere or triangle. (Ex. 16, Loetz Rep., ¶¶ 60, 153)

251. 2x2 puzzle cubes are easier to solve than 3x3 puzzle cubes. (Ex. 16, Loetz Rep., ¶ 154).

252. 4x4 puzzle cubes are harder to solve than 3x3 puzzle cubes. (Ex. 16, Loetz Rep., ¶ 154).

253. The 3x3 puzzle cube presents a challenge, but an achievable one for average individuals. (Ex. 16, Loetz Rep., ¶ 155).

254. To achieve maximum contrast with colors, a puzzle cube maker is limited to eight options: shades of the three primary colors, shades of the three secondary colors, white, and black. (Ex. 16, Loetz Rep., ¶ 159).

255. Because white provides the best background for a logo, puzzle cube makers prefer to make one side of the cube white. (Ex. 16, Loetz Rep., ¶ 160).

256. The human eye can more easily detect differences in green hues than differences in blue or purple hues. (Ex. 16, Loetz Rep., ¶ 84).

257. The human eye can more easily detect differences in red hues than differences in blue or purple hues. (Ex. 16, Loetz Rep., ¶ 84).

258. Because blue and purple are comparatively more difficult to distinguish from one another than other colors, puzzle cube makers prefer to use only one of those two colors. (Ex. 16, Loetz Rep., ¶ 161).

259. With one side fixed on white, and another side fixed on either blue or purple, there are only five different combinations of maximum contrasting colors for the remaining four sides of a puzzle cube. (Ex. 16, Loetz Rep., ¶ 161).
260. There are more than five puzzle cube makers and sellers in the industry. (Ex. 16, Loetz Rep., ¶ 163).
261. The number of possible 3x3 puzzle cube designs with maximum contrasting colors are fewer than the number of entities that wish to manufacture and/or sell puzzle cubes. (Ex. 16, Loetz Rep., ¶ 164).
262. Colors appear more brilliantly when they are shown on a black background. (Ex. 16, Loetz Rep., ¶ 87).
263. Mr. Gottlieb did not know whether his proposed alternative designs could be solved as easily as a cube with the Rubik's Cube Design. (Ex. 62, Gottlieb Dep. Tr., at 284:13-285:2).
264. Mr. Gottlieb did not know the cost of manufacturing any of his proposed alternative designs. (Ex. 62, Gottlieb Dep. Tr., at 286:6-10).
265. Mr. Gottlieb did not know whether his proposed alternative designs could be used at WCA competitions. (Ex. 62, Gottlieb Dep. Tr., at 288:4-12).
266. Mr. Gottlieb had "no comment" on whether RBL considered all 3x3 puzzle cubes, like his alternative designs, infringing. (Ex. 62, Gottlieb Dep. Tr., at 291:12-22).

Manufacturing 3x3 Puzzle Cubes

267. The initial manufacturing of the 3x3 Rubik's Cube created the 3x3 Cube Design at-issue in this case. (Ex. 16, Loetz Rep., ¶¶ 168-169).
268. Initially, the base of the 3x3 Rubik's Cube was manufactured from black plastic. (Ex. 16, Loetz Rep., ¶ 168).

269. Initially, the color patches of the 3x3 Rubik's Cube were applied with colored stickers. (Ex. 16, Loetz Rep., ¶ 168; Ex. 60, Riehl Dep. Tr., at 10:17-20, 172:22-24, 178:2-8, 178:19-179:2).
270. When the colored stickers were applied to the 3x3 Rubik's Cube, they did not extend to the edges of the smaller cube segments for practical reasons, creating a black grid. (Ex. 16, Loetz Rep., ¶ 168; Ex. 63, Simms Dep. Tr., at 15:17-20, 87:2-16).
271. The 3x3 Rubik's Cube is no longer stickered and now uses colored tiles. (Ex. 16, Loetz Rep., ¶ 168; Ex. 60, Riehl Dep. Tr., at 10:17-20, 172:22-24, 178:2-8, 178:19-179:2).
272. Manufacturing the base of a puzzle cube from a single color of plastic generates efficiencies in sourcing material, molding parts, and assembly. (Ex. 16, Loetz Rep., ¶¶ 166-167; Ex. 61, Kremer Dep. Tr., at 12:9-20, 253:24-6, 254:9-12; *see also* Ex. 62, Gottlieb Dep. Tr., at 226:12-16, 228:1-5; Ex. 65, Cipolla Dep. Tr., at 74:6-20, 77:22-25, 81:2-8).
273. Black plastic is generally more readily available and cheaper than other colored plastic. (Ex. 65, Cipolla Dep. Tr., at 88:1-91:3).
274. Applying color to a puzzle cube with stickers is a cost-effective means of creating the external indicia of the puzzle. (Ex. 65, Cipolla Dep. Tr., at 76:9-77:9, 77:22-25, 94:16-22, 95:14-96:8).

Hindering Competition

275. RBL's corporate representative testified that RBL believes *every* 3x3 puzzle cube infringes RBL's trademark rights—i.e., “is a Rubik's knock-off”—it is only a matter of degree. (Ex. 60, Riehl Dep. Tr., at 10:17-20, 289:19-22; *see also* Ex. 61, Kremer Dep. Tr., at 148:22-149:8; Ex. 62, Gottlieb Dep. Tr., at 291:12-22).

276. The 3x3 Cube Design is just one of a limited set of competitively viable 3x3 puzzle cube designs. (Ex. 16, Loetz Rep., ¶¶ 152-164).

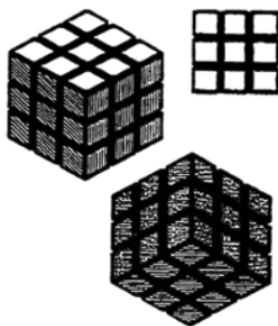
277. Cubes with numbers and/or shapes as their external indicial are not eligible to be used at WCA competitions. (Ex. 16, Loetz Rep., ¶ 158).

278. If a puzzle cube maker's 3x3 puzzle cube was not eligible to be used at WCA competitions, the puzzle cube maker would not have the opportunity to promote its products and brand and goodwill throughout the world. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 241:13-17).

279. Granting RBL a monopoly over the 3x3 Cube Design would put puzzle cube makers at a disadvantage and hinder competition in the industry. (Ex. 16, Loetz Rep., ¶¶ 108-109).

European Union Decisions

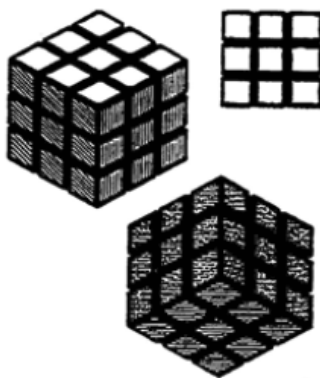
280. In *Simba Toys GmbH & Co. KG v. Seven Towns Ltd.*, the Court of Justice of the European Union (First Chamber) considered whether the following “[t]hree-dimensional mark in the shape of a cube with surfaces having a grid structure” was invalid as functional:



(Ex. 59, Judgment of the Court, ¶¶ 1, 7-10; *see also* Ex. 61, Kremer Dep. Tr., at 12:9-20, 83:4-23).

281. In a November 10, 2016 Judgment, the Court of Justice of the European Union (First Chamber) entered final judgment that the “[t]here-dimensional mark in the shape of a cube with surfaces having a grid structure” was not protectable as a trademark because it was functional. (Ex. 59, Judgment of the Court, ¶¶ 33-58).

282. In *Rubik’s Brand Ltd. V. Simba Toys GmbH & Co. KG*, the European General Court (Eighth Chamber) considered whether the following “[t]hree-dimensional mark in the shape of a cube with surfaces having a grid structure” was invalid as functional:



(Ex. 45, Judgment of the General Court, ¶¶ 1-2).

283. The European General Court reasoned the “black lines actually represent a physical separation between the different small cubes, allowing a player to rotate each row of small cubes independently of each other in order to gather those small cubes, in the desired colour scheme, on the cube’s six faces. Such a physical separation is necessary to rotate, vertically and horizontally, the different rows of small cubes by means of a mechanism located in the centre of the cube. Without such a physical separation, the cube would be nothing more than a solid block in which none of the

individual elements could move independently of the others.” (Ex. 45, Judgment of the General Court, ¶ 86).

284. The European General Court reasoned “[T]he cube shape is inseparable, on the one hand, from the grid structure, which consists of the black lines that intersect on each of the faces of the cube and divide each of them into nine small cubes of equal size divided into rows of 3 x 3, and, on the other, from the function of the actual goods at issue, which is to rotate, horizontally and vertically, the rows of small cubes. In the light of those factors, the shape of the product is necessarily that of a cube, that is, a regular hexahedron.” (Ex. 45, Judgment of the General Court, ¶ 89).

285. The European General Court (Eighth Chamber) determined that the “[t]hree-dimensional mark in the shape of a cube with surfaces having a grid structure” was functional and not protectable as a trademark. (Ex. 45, Judgment of the General Court, ¶ 87).

No Actual Confusion

286. RBL has no evidence of actual confusion (i.e., mistaken association) between the Duncan Quick Cube and the 3x3 Rubik’s Cube. (Ex. 67, RBL Interrog. Resp., No. 11; Ex. 61, Kremer Dep. Tr., at 12:9-20, 92:19-93:2, 141:2-142:5; Ex. 60, Riehl Dep. Tr., at 10:17-20, 266:13-18, 268:8-11).

287. RBL has no evidence of actual confusion (i.e., mistaken association) between the Duncan Quick Cube and RBL. (Ex. 67, RBL Interrog. Resp., No. 11; Ex. 61, Kremer Dep. Tr., at 12:9-20, 92:19-93:2, 141:2-142:5; Ex. 60, Riehl Dep. Tr., at 10:17-20, 267:2-5).

288. RBL has no survey evidence that the Duncan Quick Cube causes confusion with the 3x3 Cube Design. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 137:13-17; Ex. 62, Gottlieb Dep. Tr., at 142:21-143:4).

289. RBL has no survey evidence that the Duncan Quick Cube causes confusion with RBL. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 137:13-17; Ex. 62, Gottlieb Dep. Tr., at 142:21-143:4).

290. Flambeau is aware of no actual confusion (i.e., mistaken association) between the Duncan Quick Cube and the Rubik's Cube. (Ex. 1, Burke Decl., ¶ 27).

291. Flambeau is aware of no actual confusion (i.e., mistaken association) between the Duncan Quick Cube and RBL. (Ex. 1, Burke Decl., ¶ 28).

292. Consumers are aware that there are many 3x3 puzzle cube makers and that not all 3x3 puzzle cubes originate or are authorized by RBL. (Ex. 16, Loetz Rep., ¶ 205).

Dissimilarities in Designs

293. The overall impressions of RBL's 3x3 Cube Design and Flambeau's Duncan Quick Cube are different. (Ex. 16, Loetz Rep., ¶¶ 190-194).

294. RBL's 3x3 Cube Design specifies a black cube, and every single "core puzzle cube" that RBL offers in its product book has black-edges and no "core puzzle cube" that RBL offers in its product book has white edges. (Ex. 60, Riehl Dep. Tr., at 10:17-20, 137:13-138:11; Ex. 69, RBL Req. Ad. Resp., No. 7).

295. The Duncan Quick Cube is a white cube. (Ex. 1, Burke Decl., ¶ 13; Ex. 16, Loetz Rep., ¶ 191; Ex. 60, Riehl Dep. Tr., at 10:17-20, 264:7-14).

296. In branding, white and black are perceived as opposites. (Ex. 16, Loetz Rep., ¶ 191)



297. A white cube is unlikely to suggest affiliation with a design using a black cube. (Ex. 16, Loetz Rep., ¶ 191).
298. RBL's 3x3 Cube Design specifies uniform, square-shaped smaller cube segments. (Ex. 37, '094 Registration; Ex. 60, Riehl Dep. Tr., at 10:17-20, 56:23-57:3, 57:12-13, 60:18-24; Ex. 69, RBL Req. Ad. Resp., No. 9).
299. The Duncan Quick Cube's smaller segments are not uniformly square. (Ex. 1, Burke Decl., ¶ 14; Ex. 16, Loetz Rep., ¶ 192; Ex. 60, Riehl Dep. Tr., at 10:17-20, 264:25-265:2).
300. The inner corners of the Duncan Quick Cube's smaller segments are cut away for quicker turning, resulting in four diamond shaped holes around the center segment of each face. (Ex. 1, Burke Decl., ¶ 14; Ex. 16, Loetz Rep., ¶ 192).
301. RBL's 3x3 Cube Design specifies uniform, square-shaped color patches. (Ex. 37, '094 Registration; Ex. 60, Riehl Dep. Tr., at 10:17-20, 56:23-57:3, 57:12-13, 60:18-24).
302. The color patches on the Duncan Quick Cube are not uniformly square. (Ex. 1, Burke Decl., ¶ 14; Ex. 16, Loetz Rep., ¶ 193).
303. The inner corners of the color patches on the Duncan Quick Cube are cut away. (Ex. 1, Burke Decl., ¶ 14).
304. RBL's 3x3 Cube Design specifies color patches of three traditional primary colors—red, blue, and yellow, two traditional secondary colors—green and orange, and white. (Ex. 37, '094 Registration; Ex. 60, Riehl Dep. Tr., at 10:17-20, 56:23-57:3, 57:12-13, 60:18-24).
305. The Quick Cube's patches use a bright, fluorescent color palette. (Ex. 1, Burke Decl., ¶ 13; Ex. 16, Loetz Rep., ¶ 194; *see also* Ex. 60, Riehl Dep. Tr., at 10:17-20, 265:16-266:12).

306. As registered, the 3x3 Cube Design requires a certain orientation to these colors, with the white face adjacent to the yellow and orange faces and the red face adjacent to the blue and green faces. (Ex. 37, '094 Registration; Ex. 31, '308 Application, at FLAMBEAU000040, FLAMBEAU000253-257; Ex. 16, Loetz Rep., ¶ 39; Ex. 61, Kremer Dep. Tr., at 12:9-20, 57:24-58:3, 58:7, 58:12-59:3, 59:12-19).



307. The white face of the Duncan Quick Cube is opposite the yellow face, which is not the case in the 3x3 Cube Design, as registered. (Ex. 1, Burke Decl., ¶ 13; Ex. 16, Loetz Rep., ¶ 39).

Use of House Marks

308. Both parties use their house marks on their respective products as source identifiers:

3x3 Rubik's Cube	Duncan Quick Cube
 <p>(Ex. 61, Kremer Dep. Tr., at 12:9-20, 135:18-20, 267:22-268:7, 269:22-270:10; Ex. 60, Riehl Dep. Tr., at 10:17-20, 76:12-18, 76:25-77:15, 111:10-16, 126:19-22, 141:13-25; Ex. 16, Loetz Rep., ¶¶ 34, 190; Ex. 62, Gottlieb Dep. Tr., at 22:2-12, 22:22-23:4).</p>	 <p>(Ex. 1, Burke Decl., ¶¶ 13, 16; Ex. 61, Kremer Dep. Tr., at 12:9-20, 40:10-41:3, 48:10-49:2; Ex. 60, Riehl Dep. Tr., at 10:17-20, 262:8-12, 263:18-25, 270:14-25; Ex. 16, Loetz Rep., ¶ 190; Ex. 62, Gottlieb Dep. Tr., at 24:22-25:5).</p>

309. Both parties use their house marks on their respective products' packaging as source identifiers:

3x3 Rubik's Cube	Duncan Quick Cube
 <p>(Ex. 61, Kremer Dep. Tr., at 12:9-20, 135:21-24, 265:17-266:17, 268:8-10, 268:16-23, 269:19-21, 270:6-13; Ex. 60, Riehl Dep. Tr., at 10:17-20, 79:16-21, 81:9-14, 81:25-82:4, 111:17-112:2, 138:16-17, 138:21-139:14; Ex. 16, Loetz Rep., ¶¶ 34, 195; Ex. 62, Gottlieb Dep. Tr., at 22:2-12, 22:22-23:4).</p>	 <p>(Ex. 1, Burke Decl., ¶ 17; Ex. 3, Quick Cube & Packaging; Ex. 4, Duncan Quick Cube 3902QC; Ex. 5, Duncan Quick Cube 3901QC; <i>see also</i> Ex. 60, Riehl Dep. Tr., at 10:17-20, 262:22-263:7, 271:2-3, 271:8-9; Ex. 61, Kremer Dep. Tr., at 12:9-20, 135:14-17; Ex. 16, Loetz Rep., ¶ 195; Ex. 62, Gottlieb Dep. Tr., at 24:22-25:5).</p>

Good Faith & Advice of Counsel

310. Prior to launching the Duncan Quick Cube in the U.S., Flambeau sought and received advice on how to avoid potential IP risks. (Ex. 1, Burke Decl., ¶ 15; Ex. 10, Berson Decl., ¶¶ 6-10).

311. Counsel informed Flambeau that the Duncan Quick Cube appeared conventional, that it was well known in the field that Mr. Rubik's original patents on the conventional 3x3 puzzle cube had expired, and that Flambeau could avoid patent infringement by

practicing what was disclosed in the expired patents. (Ex. 10, Berson Decl., ¶ 7; Ex. 11, 5/28/15 Patent Opinion).

312. Counsel informed Flambeau that the ‘094 Registration specified a black cube and thus Flambeau could avoid infringement with a white cube. (Ex. 10, Berson Decl., ¶¶ 8-9; Ex. 12, 1/28/16 Trademark Opinion; Ex. 13, 2/1/2016 Trademark Opinion).

313. Counsel informed Flambeau that the European Court of Justice found RBL’s registration for 3x3 puzzle cube design functional in the European Union. (Ex. 10, Berson Decl., ¶ 10; Ex. 14, 11/11/2016 Trademark Opinion).

Genericness of the 3x3 Cube Design

314. Mr. Loetz conducted a review of the 3x3 puzzle cube market and concluded that the 3x3 Cube Design lacks distinctiveness because it no longer indicates to the purchasing public that a puzzle cube bearing that design is sourced from any one particular manufacturer or seller. (Ex. 16, Loetz Rep., ¶¶ 176-187).

315. There are dozens of different non-Rubik’s 3x3 puzzle cubes available for purchase in the U.S. (Ex. 16, Loetz Rep., ¶¶ 183-186 & Appendix 7; Ex. 61, Kremer Dep. Tr., at 12:9-20, 250:5-15; *see also* Ex. 62, Gottlieb Dep. Tr., at 65:20-66:5 (Mr. Gottlieb “wouldn’t know” how many brands or models of speed cubes are available on the market)).

316. There are dozens of different non-Rubik’s 3x3 puzzle cubes using the 3x3 Cube Design available for purchase in the U.S. (Ex. 16, Loetz Rep., ¶¶ 183-186 & Appendix 7; Ex. 61, Kremer Dep. Tr., at 12:9-20, 250:5-15; *see also* Ex. 62, Gottlieb Dep. Tr., at 65:20-66:5 (Mr. Gottlieb “wouldn’t know” how many brands or models of speed cubes are available on the market)).

317. The 3x3 Cube indicates to the purchasing public that the product is a generic 3x3 puzzle cube, not any particular brand of cube. (Ex. 16, Loetz Rep., ¶¶ 176, 182, 187).

318. RBL's corporate representative represented that over half of WCA competitors use non-RBL branded 3x3 puzzle cubes. (Ex. 60, Riehl Dep. Tr., at 10:17-20, 230:7-231:2, 257:18-258:14).

Different Play Value

319. Flambeau's Quick Cube is designed for speed solving. (Ex. 1, Burke Decl., ¶¶ 10-12, 14; Ex. 16, Loetz Rep., ¶ 197).

320. The inner corners of the Quick Cube's smaller segments are cut-away so that the segments can turn quickly and easily. (Ex. 1, Burke Decl., ¶ 14; Ex. 16, Loetz Rep., ¶ 197; *see also* Ex. 61, Kremer Dep. Tr., at 12:9-20, 218:9-12).

321. Puzzle cubes that bear the 3x3 Cube Design, like the 3x3 Rubik's Cube, have uniform square segments that catch on each other when the puzzle is twisted and turned. (Ex. 16, Loetz Rep., ¶¶ 197-98).

322. The Duncan Quick Cube turns more smoothly, quickly, and easily than puzzle cubes that bear the 3x3 Cube Design, like the 3x3 Rubik's Cube. (Ex. 16, Loetz Rep., ¶¶ 197-98).

Different Customers

323. RBL does not sell puzzle cubes directly to retailers. (Ex. 60, Riehl Dep. Tr., at 10:17-20, 33:23-34:16, 50:12-51:12, 152:19-153:2).

324. RBL licenses its alleged trademark rights, including the 3x3 Cube Design, to puzzle cube manufacturers for a royalty. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 15:9-13, 163:7-12, 166:25-167:13, 170:12-24, 171:4, 171:10-14, 171:20-25, 172:6-10; Ex. 60, Riehl Dep. Tr., at 10:17-20, 49:10-18, 50:22-51:9).

325. RBL's licensees include large manufacturers, like Hasbro. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 135:25-136:5; Ex. 60, Riehl Dep. Tr., at 10:17-20, 33:23-34:16, 50:12-51:12, 161:11-22).

326. Flambeau sells its Quick Cubes directly to retailers. (Ex. 1, Burke Decl., ¶ 24).

327. Flambeau's customers include large retailers, like Target and Staples. (Ex. 1, Burke Decl., ¶ 24).

Sophistication of Customers

328. Flambeau's retail customers are sophisticated. (Ex. 1, Burke Decl., ¶ 25; Ex. 16, Loetz Rep., ¶ 220-203).

329. Retailers of the Duncan Quick Cube have dedicated purchasing departments with individuals highly specialized in and knowledgeable regarding purchasing products for re-sale. (Ex. 1, Burke Decl., ¶ 25; Ex. 16, Loetz Rep., ¶ 201; *see also* Ex. 61, Kremer Dep. Tr., at 12:9-20, 136:9-25; Ex. 62, Gottlieb Dep. Tr., at 149:5-13, 149:18-151:25).

330. Individuals in the retailers' purchasing departments are typically buying large, bulk orders, so they exercise a high degree of care when reviewing products and making purchases. (Ex. 1, Burke Decl., ¶ 26; Ex. 16, Loetz Rep., ¶ 202; Ex. 62, Gottlieb Dep. Tr., at 149:5-13, 149:18-151:25).

331. Flambeau's and its customers' purchasing agreements are arms-length deals reached through negotiation where each side is familiar with the other and does due diligence before entering into the formal arrangement. (Ex. 1, Burke Decl., ¶ 26; Ex. 16, Loetz Rep., ¶ 203; Ex. 61, Kremer Dep. Tr., at 12:9-20, 137:2-12).

332. RBL concedes that retailers, like those that buy the 3x3 Rubik's Cube and the Duncan Quick Cube, are knowledgeable about the products they purchase. (Ex. 61,

Kremer Dep. Tr., at 12:9-20, 136:9-15, 136:18-137:12; Ex. 60, Riehl Dep. Tr., at 10:17-20, 153:17-24, 155:6-12, 158:7-159:8).

No Evidence of Dilution

333. RBL has no survey evidence that shows the 3x3 Cube Design has secondary meaning. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 137:13-17; Ex. 60, Riehl Dep. Tr., at 10:17-20, 183:23-25; Ex. 62, Gottlieb Dep. Tr., at 141:5-8, 141:12-15; *see also id.* at 124:14-19 (no survey on cube purchaser interests)).
334. RBL has no survey evidence that shows the 3x3 Cube Design is famous. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 137:13-17; Ex. 60, Riehl Dep. Tr., at 10:17-20, 183:23-25; Ex. 62, Gottlieb Dep. Tr., at 141:5-8, 141:12-15; *see also id.* at 114:3-9 (Mr. Gottlieb did not know sales data for the number of Rubik's Cubes in the U.S.), 124:14-19 (no survey on cube purchaser interests)).
335. RBL has no survey evidence that the Quick Cube has caused blurring of the 3x3 Cube Design. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 137:13-17; Ex. 60, Riehl Dep. Tr., at 10:17-20, 183:23-25).
336. RBL has no survey evidence that the Quick Cube has tarnished the 3x3 Cube Design. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 137:13-17).
337. RBL has no survey evidence that the Quick Cube has diluted the 3x3 Cube Design. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 137:13-17).

Fraud on the PTO

338. Jessie Roberts worked as trademark examiner and administrator with the USPTO for over 26 years. (Ex. 15, Roberts Rep., ¶¶ 3-4).

339. In her position as Trademark Lead Attorney, Ms. Roberts was responsible for training new examining attorneys and handling difficult and complex trademark applications. (Ex. 15, Roberts Rep., ¶ 3).

340. In her position as Administrator for Trademark Identifications, Classifications and Practice, Ms. Roberts set policy concerning the identification of goods and services for purposes of trademark registrations. (Ex. 15, Roberts Rep., ¶ 4).

341. Ms. Roberts is the author of *International Trademark Classification: A Guide to the Nice Agreement* published by Oxford University Press, now in its fifth edition (published in 2017). (Ex. 15, Roberts Rep., ¶ 4).

342. Ms. Roberts reviewed the file history of the ‘094 Registration and concluded that the application to register the 3x3 Cube Design should have been refused for functionality. (Ex. 15, Roberts Rep., ¶¶ 38-44 *see also id.*, ¶¶ 50-54, 57-58).

343. Ms. Roberts concluded that Ideal’s and CBS’ failure to provide known patents to the examiner during prosecution of the ‘094 Registration after the examiner requested the patents constituted fraud on the USPTO. (Ex. 15, Roberts Rep., ¶¶ 59-60).

344. Ms. Roberts concluded that Ideal’s and CBS’ fraud caused injury not only to the USPTO, but to puzzle cube makers, like Flambeau, against whom RBL has asserted the ‘094 Registration. (Ex. 15, Roberts Rep., ¶ 61).

Knowledge of Patents

345. Ms. Roberts created a timeline of events related to Ideal’s and CBS’s knowledge of certain utility patents, which is attached as Exhibit G to her report. (Ex. 15, Roberts Rep., ¶ 47 & Exhibit G; *see also* Ex. 63, Simms Dep. Tr., at 15:17-20, 47:15-18, 48:6-11 (Mr. Simms reviewed only a single patent), 49:1-6, 49:10-13, 49:20-25, 52:9-53:4, 53:8-54:25, 55:18-57:4).

346. In September 1982, Ideal was in a business relationship with Mr. Rubik's and certain Hungarian authorities that gave Ideal exclusive rights to sell the 3x3 Rubik's Cube in the U.S. (Ex. 39, CBS Brief, at FLAMBEAU002015 (1985 WL 671390, *16); *see also* Ex. 61, Kremer Dep. Tr., at 12:9-20, 29:24-30:8, 30:12-25, 32:3-10, 32:20-24).

347. It is reasonable to infer that patent counsel is aware of the patents related to the goods of his or her client. (Ex. 63, Simms Dep. Tr., at 15:17-20, 61:2-10, 97:15-98:4)

348. The '308 Application was submitted by Ideal's patent counsel. (Ex. 63, Simms Dep. Tr., at 15:17-20, 60:22-61:1; Ex. 31, '308 Application).

349. In September 1982, Ideal was aware of the '062 Rubik Patent, which had issued in December 1977 and named Mr. Rubik as an inventor, because Ideal was in a business relationship with Mr. Rubik regarding Ideal's puzzle cube business at that time. (Ex. 15, Roberts Rep., ¶¶ 36, 55; Ex. 20, '062 Rubik Patent, at FLAMBEAU000640; Ex. 39, CBS Brief, at FLAMBEAU002015 (1985 WL 671390, *16)).

350. In September 1982, Ideal was aware of the '062 Rubik Patent because Ideal listed the '062 Patent in patent applications that Ideal filed in August 1981 and January 1982. (Ex. 25, Silbermintz Patent, at FLAMBEAU001365; Ex. 28, Sebesteny Patent, at FLAMBEAU001383).

351. In September 1982, Ideal was aware of the '875 Rubik Patent, which had published in July 1981 and named Mr. Rubik as an inventor, because Ideal was in a business relationship with Mr. Rubik regarding Ideal's puzzle cube business at that time. (Ex. 15, Roberts Rep., ¶¶ 36, 55; Ex. 21, '875 Rubik Patent, at FLAMBEAU000619-620; Ex. 39, CBS Brief, at FLAMBEAU002015 (1985 WL 671390, *16)).

352. In September 1982, Ideal was aware of the application that gave rise to the '387 Rubik Patent, which was filed in October 1980 and named Mr. Rubik as an inventor,

because Ideal was in a business relationship with Mr. Rubik regarding Ideal's puzzle cube business at that time. (Ex. 15, Roberts Rep., ¶¶ 36, 55; Ex. 22, '387 Rubik Patent, at FLAMBEAU000659; Ex. 39, CBS Brief, at FLAMBEAU002015 (1985 WL 671390, *16)).

353. In September 1982, Ideal was aware of the application that gave rise to the '116 Rubik Patent, which was filed in August 1981 and named Mr. Rubik as an inventor, because Ideal was in a business relationship with Mr. Rubik regarding Ideal's puzzle cube business at that time. (Ex. 15, Roberts Rep., ¶¶ 36, 55; Ex. 23, '116 Rubik Patent, at FLAMBEAU000667; Ex. 39, CBS Brief, at FLAMBEAU002015 (1985 WL 671390, *16)).

354. In September 1982, Ideal was aware of the application that gave rise to the '117 Rubik Patent, which was filed in August 1981 and named Mr. Rubik as an inventor, because Ideal was in a business relationship with Mr. Rubik regarding Ideal's puzzle cube business at that time. (Ex. 15, Roberts Rep., ¶¶ 36, 55; Ex. 24, '117 Rubik Patent, at FLAMBEAU001361; Ex. 39, CBS Brief, at FLAMBEAU002015 (1985 WL 671390, *16)).

355. In September 1982, Ideal was aware of the Nichols Patent because it had been sued on that patent in May 1982. (Ex. 15, Roberts Rep., ¶ 37; Ex. 38, 1984 D. Del. Op., at FLAMBEAU002072 (594 F. Supp. 1420, 1424); Ex. 63, Simms Dep. Tr., at 15:17-20, 155:20-156:5).

356. In September 1982, Ideal was aware of the application that gave rise to the Silbermintz Patent because it was the named assignee when it was applied for in August 1981. (Ex. 25, Silbermintz Patent, at FLAMBEAU001365).

357. In September 1982, Ideal was aware of the application that gave rise to the Sebesteny Patent because it was the named assignee when it was applied for in January 1982. (Ex. 28, Sebesteny Patent, at FLAMBEAU001383).

358. In September 1982, Ideal was aware of the Ishige Patent because Ideal listed the Ishige Patent in a patent application that Ideal filed in January 1982. (Ex. 28, Sebesteny Patent, at FLAMBEAU001383).

359. In August or September 1982, CBS acquired Ideal's 3x3 Rubik's Cube business, including all intellectual property rights. (Ex. 38, 1984 D. Del. Op., at FLAMBEAU002072 (594 F. Supp. 1420, 1424); *see also* Ex. 66, Cube is a Problem to CBS, New York Times (1984), at FLAMBEAU002026).

360. By May 1983, CBS was made aware of the '062 Rubik Patent when it purchased Ideal's puzzle cube business, which included exclusive rights from Mr. Rubik and certain Hungarian authorities to sell the 3x3 Puzzle Cube in the U.S. (Ex. 15, Roberts Rep., ¶ 36; Ex. 20, '062 Rubik Patent, at FLAMBEAU000640; Ex. 39, CBS Brief, at FLAMBEAU002015 (1985 WL 671390, *16); Ex. 38, 1984 D. Del. Op., at FLAMBEAU002072 (594 F. Supp. 1420, 1424); *see also* Ex. 25, Silbermintz Patent, at FLAMBEAU001365 (listing '062 Rubik Patent as reference); Ex. 28, Sebesteny Patent, at FLAMBEAU001383 (same)).

361. By May 1983, CBS was aware of the '875 Rubik Patent when it purchased Ideal's puzzle cube business, which included exclusive rights from Mr. Rubik and certain Hungarian authorities to sell the 3x3 Puzzle Cube in the U.S. (Ex. 15, Roberts Rep., ¶ 36; Ex. 21, '875 Rubik Patent, at FLAMBEAU000619-620; Ex. 39, CBS Brief, at FLAMBEAU002015 (1985 WL 671390, *16); Ex. 38, 1984 D. Del. Op., at FLAMBEAU002072 (594 F. Supp. 1420, 1424)).

362. By May 1983, CBS was aware of the application that gave rise to the ‘387 Rubik Patent when it purchased Ideal’s puzzle cube business, which included exclusive rights from Mr. Rubik and certain Hungarian authorities to sell the 3x3 Puzzle Cube in the U.S. (Ex. 15, Roberts Rep., ¶ 36; Ex. 22, ‘387 Rubik Patent, at FLAMBEAU000659; Ex. 39, CBS Brief, at FLAMBEAU002015 (1985 WL 671390, *16); Ex. 38, 1984 D. Del. Op., at FLAMBEAU002072 (594 F. Supp. 1420, 1424)).

363. By May 1983, CBS was aware of the ‘116 Rubik Patent when it purchased Ideal’s puzzle cube business, which included exclusive rights from Mr. Rubik and certain Hungarian authorities to sell the 3x3 Puzzle Cube in the U.S. (Ex. 15, Roberts Rep., ¶ 36; Ex. 23, ‘116 Rubik Patent, at FLAMBEAU000667; Ex. 39, CBS Brief, at FLAMBEAU002015 (1985 WL 671390, *16); Ex. 38, 1984 D. Del. Op., at FLAMBEAU002072 (594 F. Supp. 1420, 1424)).

364. By May 1983, CBS was aware of the ‘117 Rubik Patent when it purchased Ideal’s puzzle cube business, which included exclusive rights from Mr. Rubik and certain Hungarian authorities to sell the 3x3 Puzzle Cube in the U.S. (Ex. 15, Roberts Rep., ¶ 36; Ex. 24, ‘117 Rubik Patent, at FLAMBEAU001361; Ex. 39, CBS Brief, at FLAMBEAU002015 (1985 WL 671390, *16); Ex. 38, 1984 D. Del. Op., at FLAMBEAU002072 (594 F. Supp. 1420, 1424)).

365. By May 1983, CBS was aware of the Nichols Patent because it had been named as a defendant in a patent infringement lawsuit regarding that patent. (Ex. 15, Roberts Rep., ¶ 37; Ex. 38, 1984 D. Del. Op., at FLAMBEAU002072 (594 F. Supp. 1420, 1424); Ex. 63, Simms Dep. Tr., at 15:17-20, 155:20-156:5).

366. By May 1983, CBS was made aware of the application that gave rise to the Silbermintz Patent when it purchased Ideal’s intellectual property rights. (Ex. 25,

Silbermintz Patent, at FLAMBEAU001365; Ex. 39, CBS Brief, at FLAMBEAU002015 (1985 WL 671390, *16); Ex. 38, 1984 D. Del. Op., at FLAMBEAU002072 (594 F. Supp. 1420, 1424)).

367. By May 1983, CBS was made aware of the application that gave rise to the Sebesteny Patent when it purchased Ideal's intellectual property rights. (Ex. 28, Sebesteny Patent, at FLAMBEAU001383; Ex. 39, CBS Brief, at FLAMBEAU002015 (1985 WL 671390, *16); Ex. 38, 1984 D. Del. Op., at FLAMBEAU002072 (594 F. Supp. 1420, 1424)).

368. By May 1983, CBS was made aware of the Ishige Patent when it purchased Ideal's intellectual property rights, which included a patent application listing the Ishige Patent. (Ex. 28, Sebesteny Patent, at FLAMBEAU001383; Ex. 39, CBS Brief, at FLAMBEAU002015 (1985 WL 671390, *16); Ex. 38, 1984 D. Del. Op., at FLAMBEAU002072 (594 F. Supp. 1420, 1424)).

Material Omission

369. Despite knowing about patents covering three-dimensional puzzles, Ideal did not provide any of those patents to the trademark examiner in prosecuting the '308 Application. (Ex. 15, Roberts Rep., ¶¶ 38, 49, 56; Ex. 63, Simms Dep. Tr., at 15:17-20, 206:20-207:1).

370. RBL has no idea whether Ideal ever provided any patents to the trademark examiner in prosecuting the '308 Application. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 81:4-6).

371. RBL has not conducted any investigation into whether Ideal ever provided any patents to the trademark examiner in prosecuting the '308 Application. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 81:4-15).

372. Despite knowing about patents covering three-dimensional puzzles, CBS did not provide any of those patents to the trademark examiner in prosecuting the ‘308 Application. (Ex. 15, Roberts Rep., ¶¶ 38, 49, 56; Ex. 63, Simms Dep. Tr., at 15:17-20, 206:20-207:1).

373. RBL has no idea whether CBS ever provided any patents to the trademark examiner in prosecuting the ‘308 Application. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 81:4-6).

374. RBL has not conducted any investigation into whether CBS ever provided any patents to the trademark examiner in prosecuting the ‘308 Application. (Ex. 61, Kremer Dep. Tr., at 12:9-20, 81:4-15).

375. Had Ideal provided the Rubik Patents to the examiner, they should have led to a refusal of the ‘308 Application based on functionality. (Ex. 15, Roberts Rep., ¶¶ 38-44; *see also id.*, ¶¶ 50-54, 57-58).

376. Had CBS provided the Rubik Patents to the examiner, they should have led to a refusal of the ‘308 Application based on functionality. (Ex. 15, Roberts Rep., ¶¶ 38-44 *see also id.*, ¶¶ 50-54, 57-58).

No Damage to RBL

377. Sales of the 3x3 Rubik’s Cube increased for RBL’s U.S. licenses from 2015 to 2016. (Ex. 60, Riehl Dep. Tr., at 10:17-20, 292:19-22).

378. Sales of the 3x3 Rubik’s Cube increased for RBL’s U.S. licenses from 2016 to 2017. (Ex. 60, Riehl Dep. Tr., at 10:17-20, 292:19-24).

379. Sales of the 3x3 Rubik’s Cube for RBL’s U.S. licenses were up from 2017 to 2018 as of August 2018. (Ex. 60, Riehl Dep. Tr., at 10:17-20, 292:19-293:2-4).

380. RBL has not quantified any damage to its reputation allegedly caused by the Duncan Quick Cube. (Ex. 64, Vollmar Dep. Tr., at 35:25-36:10).

Respectfully submitted this 22nd day of June, 2020.

/s/ Anthony A. Tomaselli

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that on June 22, 2020, per Judge Gardephe's Rule IV.C, the foregoing document was served on counsel of record for Plaintiff via e-mail:

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